INITIAL STUDY

DIANA AVENUE - MANA
MORGAN HILL, CALIFORNIA

Development Agreement: DA2018-0003
Environmental Assessment: EA2018-0023
Subdivision: SD2018-0006
Zoning Amendment: ZA2019-0006

PREPARED FOR
CITY OF MORGAN HILL
DEVELOPMENT SERVICES CENTER DEPARTMENT
17575 PEAK AVENUE
MORGAN HILL, CA 95037

JULY 2019

PREPARED BY
GEIER & GEIER CONSULTING, INC.
P.O. BOX 5054
BERKELEY, CA 94705-5054
510/644-2535

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CITY OF MORGAN HILL
DEVELOPMENT SERVICES CENTER DEPARTMENT
ENVIRONMENTAL CHECKLIST FORM

PROJECT INFORMATION

PROJECT TITLE:
Diana Avenue-Mana
Development Agreement DA2018-0003
Environmental Assessment EA2018-0023
Subdivision SD2018-0006
Zoning Amendment ZA2019-0006

PROJECT LOCATION:
Diana Avenue at James Lex Lane (Figure 1)

LEAD AGENCY NAME AND ADDRESS:
City of Morgan Hill
Development Services Center Department
17575 Peak Avenue
Morgan Hill, CA 95037

CONTACT PERSON AND PHONE NUMBER:
Joey Dinh, 408/778-6480
(email: joey.dinh@morganhill.ca.gov)

PROPERTY OWNER:
The Grossweiler Family and
Cuneo Family Trusts, 1997 and 1999
175 E. Main Avenue
Morgan Hill, CA 95037

PROJECT APPLICANT:
Mana Hanalei, LLC
Scott Murray, Orville Power
175 E. Main Avenue
Morgan Hill, CA 95037

GENERAL PLAN DESIGNATION:
Residential Detached Medium (up to 7 dwelling units/acre)

ZONING:
Residential Detached Medium Density (RDM 7,000)

PROJECT DESCRIPTION

Existing Setting. The 4.84-acre project site is located immediately north of the intersection of Diana Avenue and Lotus Way within an urbanized portion of Morgan Hill. **Figure 1** shows the location of the project site. The subject property consists of two parcels (APNs 726-09-001 and 726-09-002) that have been historically used for agricultural purposes. The southern portion of the property has been improved with two homes, four sheds, a concrete-paved parking pad, two gravel driveways and associated gravel parking areas. A significant portion of the site has remained undeveloped.

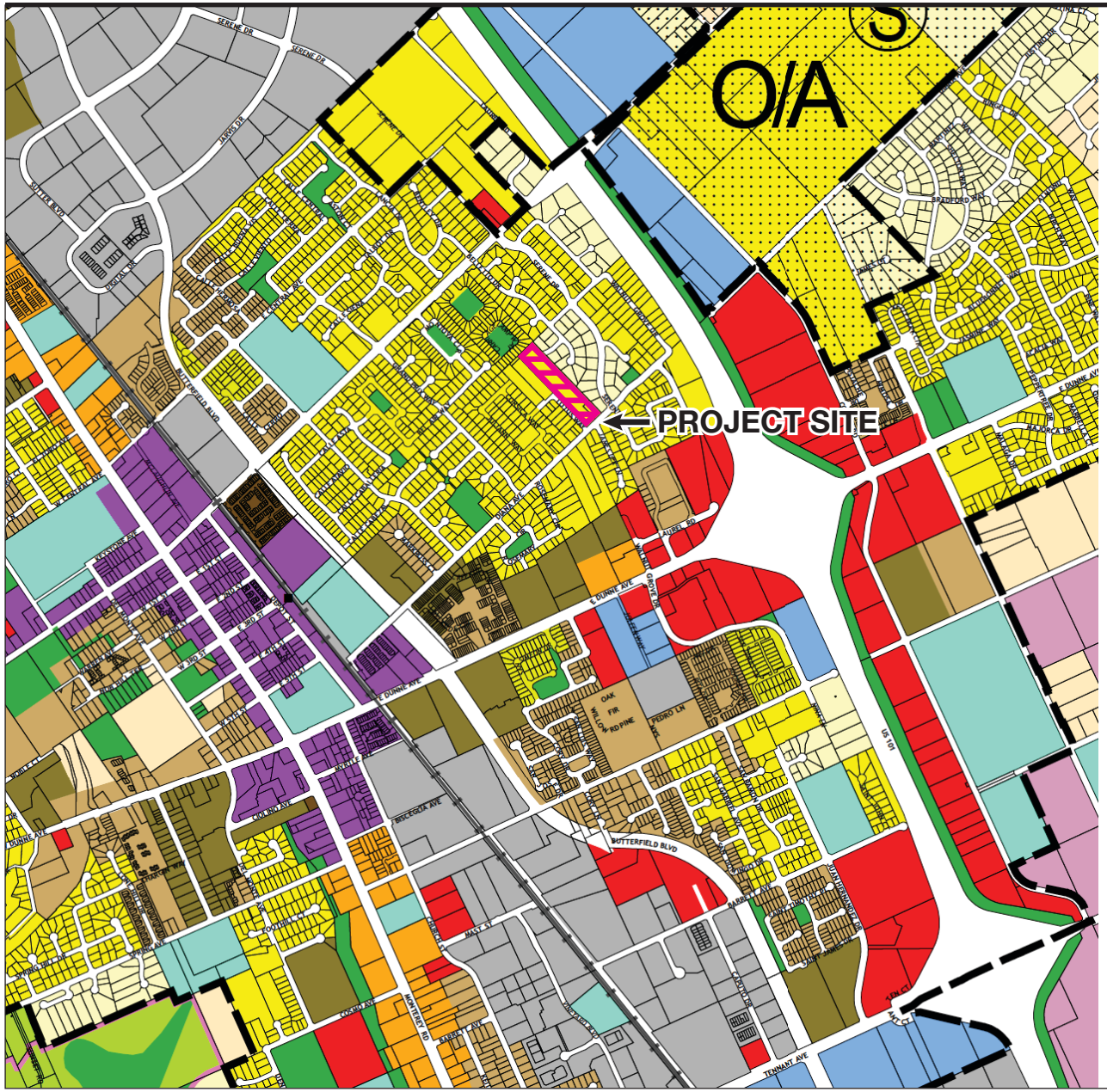
The subject property is nearly level, with a slight slope ranging in elevation from approximately 367 to 360 feet above mean sea level in the northeastern and southwestern corners of the project site, respectively. The majority (93 percent) of the project site is an undeveloped fallow field covered with grasses. The residential parcel includes ornamental landscape trees and shrubs located in the front yard along Diana Avenue. The project site has a General Plan land use designation of Residential Detached Medium density, with up to 7 dwelling units per acre. The zoning designation of the site is Residential Detached Medium density (7,000 square feet minimum lot sizes). **Figures 2 and 3** indicate the General Plan land use and zoning designations for the site and vicinity, respectively.

Regional access to the project site is available from U.S. Highway 101, East Dunne Avenue, Butterfield Boulevard, and Diana Avenue. Diana Avenue adjoins the project site and provides local access to the property. Access to the site is available from two driveways that serve the two homes on the subject property. Residential uses generally surround the project site with homes fronting on Diana Avenue, Lotus Way, Weichert Drive, Belletto Drive, Serene Drive, and Carriage Lamp Way.

Source: Geier & Geier Consulting, Inc. (2019)

General Plan Land Use Designation

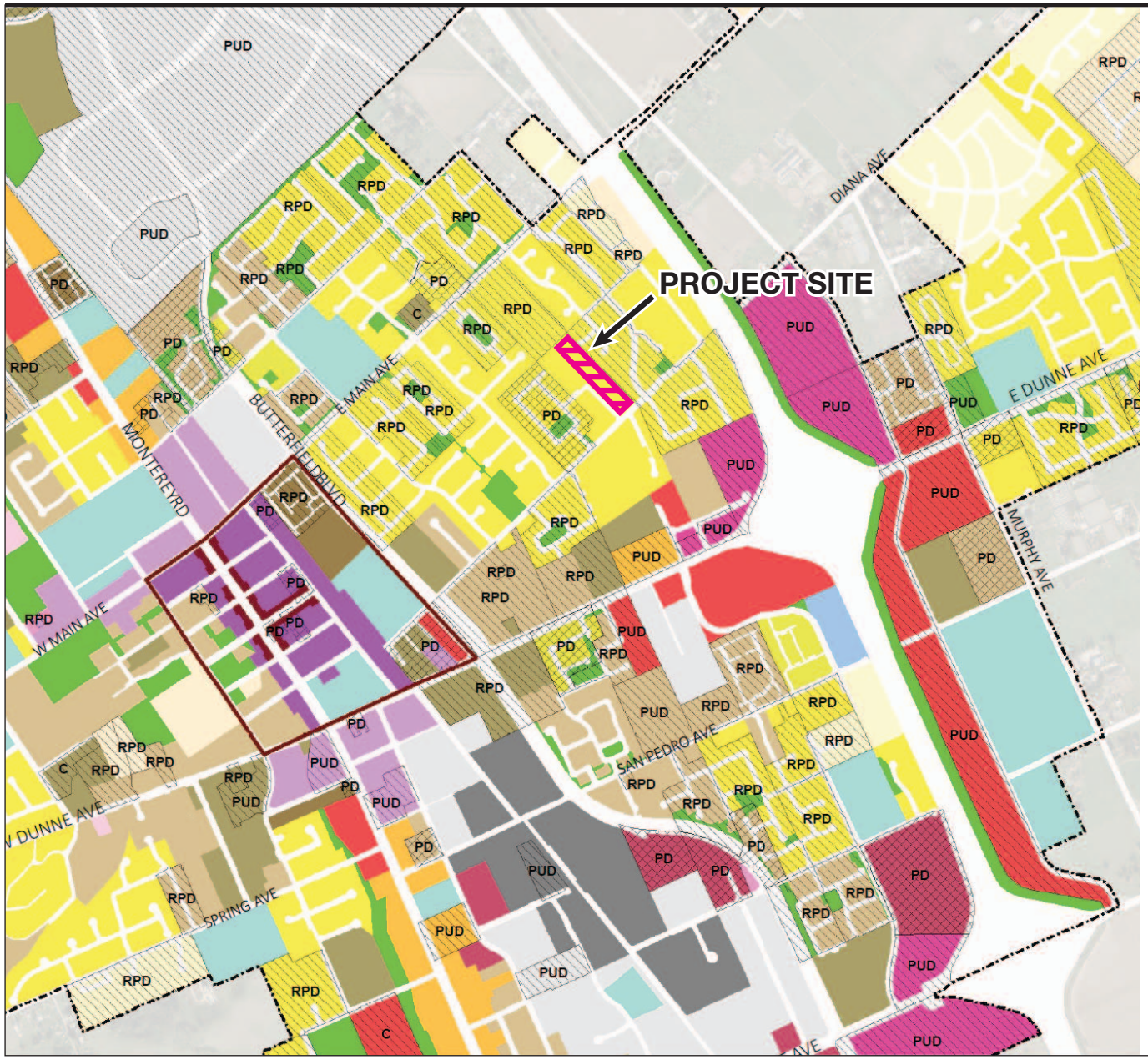
Figure 2



Source: City of Morgan Hill, (2019)

Zoning for Project Site and Vicinity

Figure 3



Legend

City Boundary

Residential Zoning Districts

- Residential Estate (RE 1 or RE 2.5)
- Residential Detached Low Density (RDL 20,000 or RDL 12,000)
- Residential Detached Medium Density (RDM 9,000 or RDM 7,000)
- Residential Detached High Density (RDH 4,500)
- Residential Attached Low Density (RAL 3,500 or RAL 3,000)
- Residential Attached Medium Density (RAM)
- Residential Attached High Density (RAH)

Mixed Use Zoning Districts

- Downtown Mixed Use (MU-D)
- Neighborhood Mixed Use (MU-N)
- Mixed Use Flex (MU-F)

Commercial Zoning Districts

- Administrative Office (CO)
- Neighborhood Commercial (CN)
- General Commercial (CG)
- Highway Commercial (CH)
- Service Commercial (CS)

Industrial Zoning Districts

- Commercial Industrial (CI)
- Office Industrial (IO) *
- Campus Industrial (IC) *
- Light Industrial (IL)
- General Industrial (IG)

Public, Open Space, and Recreational Zoning Districts

- Open Space (OS)
- Public Facilities (PF)
- Sports Recreation Leisure (SRL A and B) *

Legacy Zones (may be either base or overlay zones)

- Planned Unit Development (PUD)
- Residential Planned Development (RPD)
- Conditional Zoning (C)

Overlay Zones and Combining Districts

- Downtown Specific Plan Overlay Zone (DTSP)
- Downtown Ground Floor Overlay Zone (DGF)
- Planned Development Combining District (PD)

* Note: This zone not yet applied to any properties

Source: City of Morgan Hill, (2019)

Proposed Residential Development. The project applicant is requesting approval for the following on the 4.84-acre site (APNs 726-09-001 and 726-09-002):

- Demolition of two residential units and associated outbuildings;
- Subdivision of the project site into 24 residential lots; and,
- Construction of 24 single-family residential units, public access roads, and a private park.

The proposed project involves the development of 24 residential units on the project site. The lots would vary in size, from 3,862 square feet to 9,228 square feet. The majority of the single-family lots would be sized between 7,000 and 8,000 square feet. The project would include 12 single-story and 12 two-story units, distributed throughout the site to create height variation and a visually interesting appearance within the neighborhood. All of the proposed residential units would include attached garages for two vehicles. **Figure 4** shows the proposed site plan for the residential development.

Proposed Circulation

Lots 1 through 3 would front Juliann Way, a proposed roadway extension that would connect with Weichert Drive. Dakota Drive would be extended to the middle of the site and turn north, extending to the new Juliann Way extension on the site. The Dakota Drive extension would provide access to Lots 4 through 15, and to the proposed private park. A new cul-de-sac (Lotus Court) would extend from Lotus Way and serve Lots 16 through 21. Lots 22 to 24 would front on Diana Avenue. **Figure 5** presents the tentative map for the development, while **Figures 6a** through **6d** present typical elevations for the proposed residences.

Proposed Park. The project plans include the development of a 0.27-acre (Parcel A) private park with a tot lot. Park amenities would include: an ADA accessible pedestal BBQ, picnic tables, raised garden beds, a horseshoe pit, metal benches, extensive landscaping, walkways, and fencing surrounding the park.

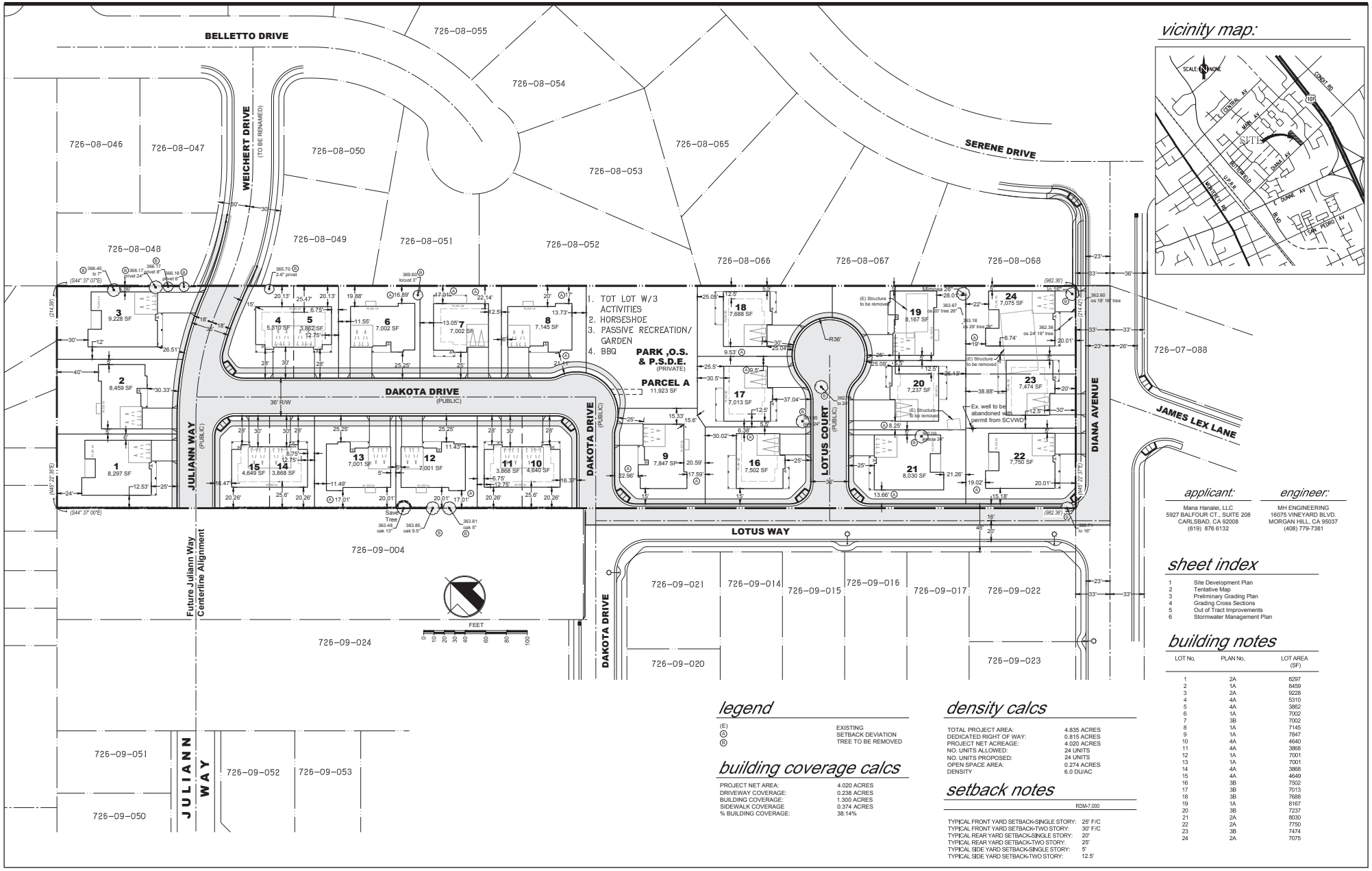
The proposed park would also serve as a bioretention site to treat storm runoff generated by the project's impervious surfaces. Bioretention improvements include underground storage raintank units for 24,461 cubic feet of storm flow retention. Treated stormflows would discharge to the public storm drain in Diana Avenue. The City would be responsible for maintenance of storm drain lines in public roads. The project HOA would be responsible for the maintenance of the underground storage raintanks and associated storm drain lines.

Project plans include the installation of sidewalks within the proposed development and paths in the park area. The park as well as the front and side yards of the site's lots would be landscaped with trees, shrubs, and groundcover, including lawn areas. The landscape plan specifies street trees along Diana Avenue and the internal roadways and in the proposed park area.

Off-site Improvements. Off-site improvements would be provided along the Diana Avenue and Lotus Way frontages. Proposed improvements include the installation of sidewalks, curb and gutters, public utility relocation, and the provision of Class II bike lane improvements. Bike lane requirements could be applied to other City-preferred locations in addition to Diana Avenue. Public utilities are available to the project site from Diana Avenue and would be extended with the on-site public road improvements.

SURROUNDING LAND USES

The proposed residential project would be developed on a 4.84-acre parcel that is generally surrounded by urban development. Existing residential uses on parcels to the north, south, southwest, and east of the project site are similar to the residential uses proposed for the site. These include single-family homes that front on Diana Avenue, Lotus Way, Weichert Drive, Serene Drive, and Carriage Lamp Way. An undeveloped parcel immediately adjoins the project site to the northwest; residential development borders the undeveloped parcel on its north, west, and south perimeters. Commercial uses are located on East Dunne Avenue and Butterfield Boulevard, approximately 0.2 miles south and 0.5 miles west of the site.



vicinity map:

legend

(E)	EXISTING
A	SETBACK DEVIATION
B	TREE TO BE REMOVED

building coverage calcs

PROJECT NET AREA:	4.020 ACRES
DRIVEWAY COVERAGE:	0.238 ACRES
BUILDING COVERAGE:	1.300 ACRES
SIDEWALK COVERAGE	0.374 ACRES
% BUILDING COVERAGE:	38.14%

density calcs

TOTAL PROJECT AREA:	4.835 ACRES
DEDICATED RIGHT OF WAY:	0.815 ACRES
PROJECT NET ACREAGE:	4.020 ACRES
NO. UNITS ALLOWED:	24 UNITS
NO. UNITS PROPOSED:	24 UNITS
OPEN SPACE AREA:	0.274 ACRES
DENSITY	6.0 DU/AC

setback notes

RDM-7,000

TYPICAL FRONT YARD SETBACK-SINGLE STORY:	25' F/C
TYPICAL FRONT YARD SETBACK-TWO STORY:	30' F/C
TYPICAL REAR YARD SETBACK-SINGLE STORY:	20'
TYPICAL REAR YARD SETBACK-TWO STORY:	25'
TYPICAL SIDE YARD SETBACK-SINGLE STORY:	5'
TYPICAL SIDE YARD SETBACK-TWO STORY:	12.5'

applicant:

Mana Hanalei, LLC
5927 BALFOUR CT., SUITE 208
CARLSBAD, CA 92008
(619) 876 6132

engineer:

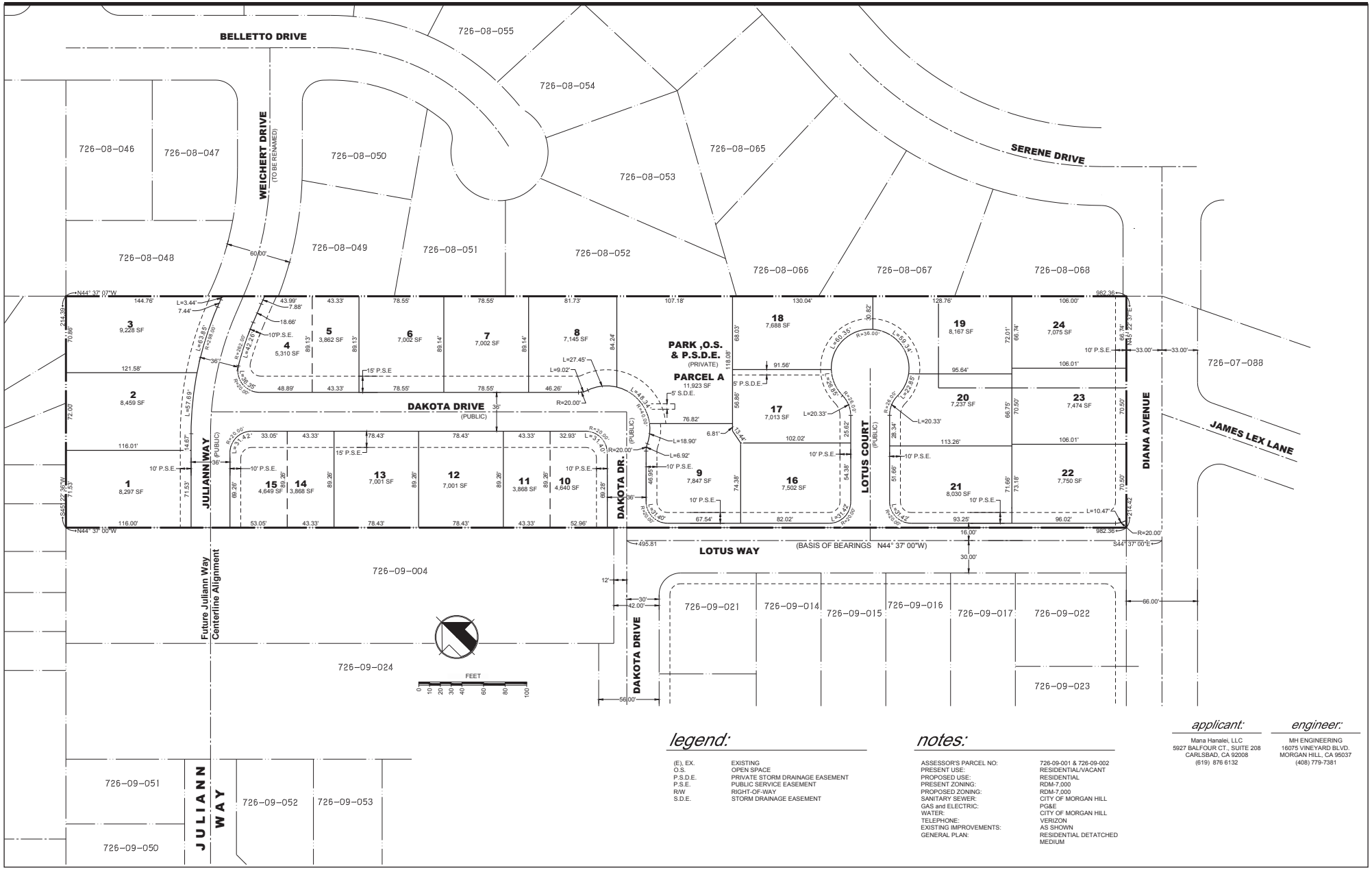
MH ENGINEERING
16075 VINEYARD BLVD.
MORGAN HILL, CA 95037
(408) 779-7381

sheet index

building notes

LOT No.	PLAN No.	LOT AREA (SF)
1	2A	8297
2	1A	8459
3	2A	9228
4	4A	5310
5	4A	3862
6	1A	7002
7	3B	7002
8	1A	7145
9	1A	7847
10	4A	4640
11	4A	3868
12	1A	7001
13	1A	7001
14	4A	3868
15	4A	4649
16	3B	7502
17	3B	7013
18	3B	7688
19	1A	8167
20	3B	7237
21	2A	8030
22	2A	7750
23	3B	7474
24	2A	7075

Source: MH Engineering Co., (2019)



legend:

(E), EX.	EXISTING
O.S.	OPEN SPACE
P.S.D.E.	PRIVATE STORM DRAINAGE EASEMENT
P.S.E.	PUBLIC SERVICE EASEMENT
R/W	RIGHT-OF-WAY
S.D.E.	STORM DRAINAGE EASEMENT

notes:

ASSESSOR'S PARCEL NO:	726-09-001 & 726-09-002
PRESENT USE:	RESIDENTIAL/VACANT
PROPOSED USE:	RESIDENTIAL
PRESENT ZONING:	RDM-7,000
PROPOSED ZONING:	RDM-7,000
SANITARY SEWER:	CITY OF MORGAN HILL
GAS and ELECTRIC:	PG&E
WATER:	CITY OF MORGAN HILL
TELEPHONE:	VERIZON
EXISTING IMPROVEMENTS:	AS SHOWN
GENERAL PLAN:	RESIDENTIAL DETATCHED MEDIUM

applicant:
Mana Hanalei, LLC
5927 BALFOUR CT., SUITE 208
CARLSBAD, CA 92008
(619) 876 6132

engineer:
MH ENGINEERING
16075 VINEYARD BLVD.
MORGAN HILL, CA 95037
(408) 779-7381

Source: MH Engineering Co., (2019)

1 PLAN 1 FRONT ELEVATION, ELEVATION A, MODERN CRAFTSMAN

2 PLAN 1 FRONT ELEVATION, ELEVATION C, MODERN RANCH

A - MODERN CRAFTSMAN

ROOF MATERIAL:

- CONCRETE FLAT TILE ROOFING

EXTERIOR FINISHES:

- 8" EXPOSURE HORIZONTAL, LAPPED PATTERN SIDING
- STRAIGHT EDGE SHINGLE PANEL SIDING OVER 2- LAYERS 60 MIN. GRADE 'D' BUILDING PAPER
- 1x3, VERTICAL BATTENS @ 16" O.C. OVER WOOD GRAIN FINISH OANEL OVER 2-LAYERS 60 MIN. GRADE 'D' BUILDING PAPER

WINDOWS & DOORS:

- SIMULATED WOOD FRONT DOORS
- VINYL FRAME WINDOWS
- WOOD TRIMS AT WINDOWS AND DOOR SURROUNDS AT SIDINGS
- SAND FINISH COAT STUCCO OVER FOAM SHAPE AT WINDOWS AND DOORS SURROUDNS AT STUCCO FINISH
- ALUMINUM SECTIONAL GARAGE DOOR

TRIM / ACCENT:

- DECORATIVE WOOD CORBEL
- DECORATIVE WOOD TRIM BAND
- DECORATIVE WOOD COLUMN
- MANUFACTURERED STONE VENEER PEDESTAL WITH PRECAST STONE CAP

C - MODERN RANCH

ROOF MATERIAL:

- CONCRETE FLAT TILE ROOFING
- STANDING SEAM METAL ROOFING

EXTERIOR FINISHES:

- 8" EXPOSURE HORIZONTAL, LAPPED PATTERN SIDING

WINDOWS & DOORS:

- SIMULATED WOOD FRONT DOORS
- VINYL FRAME WINDOWS
- WOOD TRIMS AT WINDOWS AND DOOR SURROUNDS
- ALUMINUM SECTIONAL GARAGE DOOR

TRIM / ACCENT:

- DECORATIVE WOOD CORBEL
- DECORATIVE WOOD TRIM BAND
- DECORATIVE BOXED COLUMN

Source: Dahlin, (2019)

1 PLAN 2 FRONT ELEVATION, ELEVATION A, MODERN CRAFTSMAN

A - MODERN CRAFTSMAN

ROOF MATERIAL:

- CONCRETE FLAT TILE ROOFING

EXTERIOR FINISHES:

- 8" EXPOSURE HORIZONTAL, LAPPED PATTERN SIDING
- STRAIGHT EDGE SHINGLE PANEL SIDING OVER 2- LAYERS 60 MIN. GRADE 'D' BUILDING PAPER
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TRIM / ACCENT:

- DECORATIVE WOOD CORBEL
- DECORATIVE WOOD TRIM BAND
- DECORATIVE WOOD COLUMN
- MANUFACTURERED STONE VENEER PEDESTAL WITH PRECAST STONE CAP

2 PLAN 2 FRONT ELEVATION, ELEVATION B, MODERN FARMHOUSE

B - MODERN FARMHOUSE

ROOF MATERIAL:

- CONCRETE FLAT TILE ROOFING

EXTERIOR FINISHES:

- 8" EXPOSURE HORIZONTAL, LAPPED PATTERN SIDING
- 1x3, VERTICAL BATTENS @ 16" O.C. OVER WOOD GRAIN FINISH PANEL OVER 2-LAYERS 60 MIN. GRADE 'D' BUILDING PAPER

WINDOWS & DOORS:

- SIMULATED WOOD FRONT DOORS
- VINYL FRAME WINDOWS
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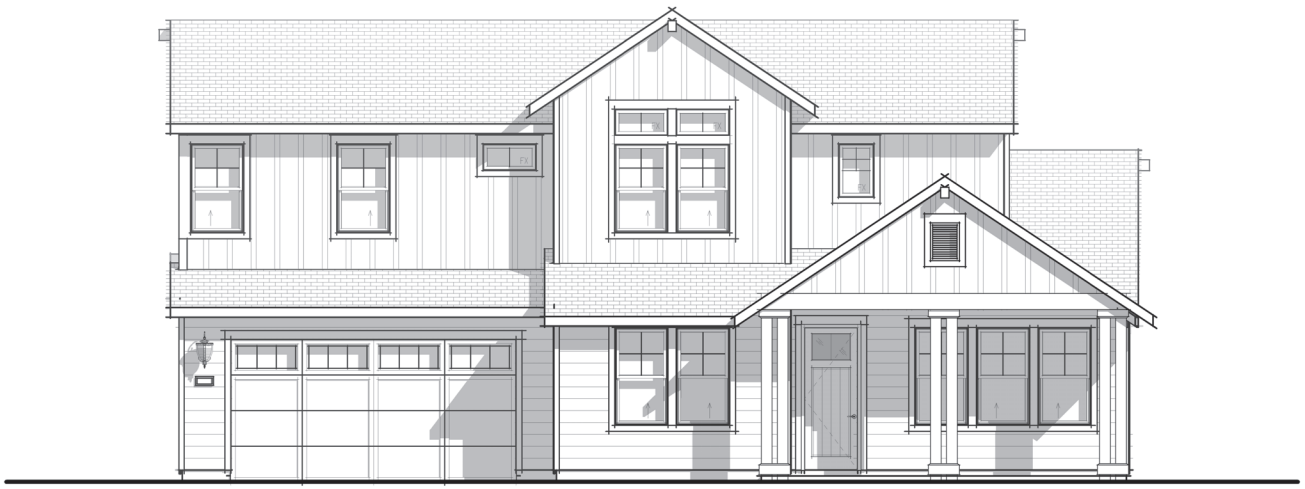
- ALUMINUM SECTIONAL GARAGE DOOR

TRIM / ACCENT:

- DECORATIVE WOOD CORBEL
- DECORATIVE WOOD TRIM BAND
- DECORATIVE WOOD POST WITH KNEE BRACE WHERE SHOWN
- DECORATIVE GABLE END VENT

Source: Dahlin, (2019)



1 PLAN 3 FRONT ELEVATION, ELEVATION B, MODERN FARMHOUSE

2 PLAN 3 FRONT ELEVATION, ELEVATION C, MODERN RANCH

B - MODERN FARMHOUSE

ROOF MATERIAL:

- CONCRETE FLAT TILE ROOFING

EXTERIOR FINISHES:

- 8" EXPOSURE HORIZONTAL, LAPPED PATTERN SIDING
- 1x3, VERTICAL BATTENS @ 16" O.C. OVER WOOD GRAIN FINISH PANEL OVER 2-LAYERS 60 MIN. GRADE 'D' BUILDING PAPER

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C - MODERN RANCH

ROOF MATERIAL:

- CONCRETE FLAT TILE ROOFING
- STANDING SEAM METAL ROOFING

EXTERIOR FINISHES:

- 8" EXPOSURE HORIZONTAL, LAPPED PATTERN SIDING

WINDOWS & DOORS:

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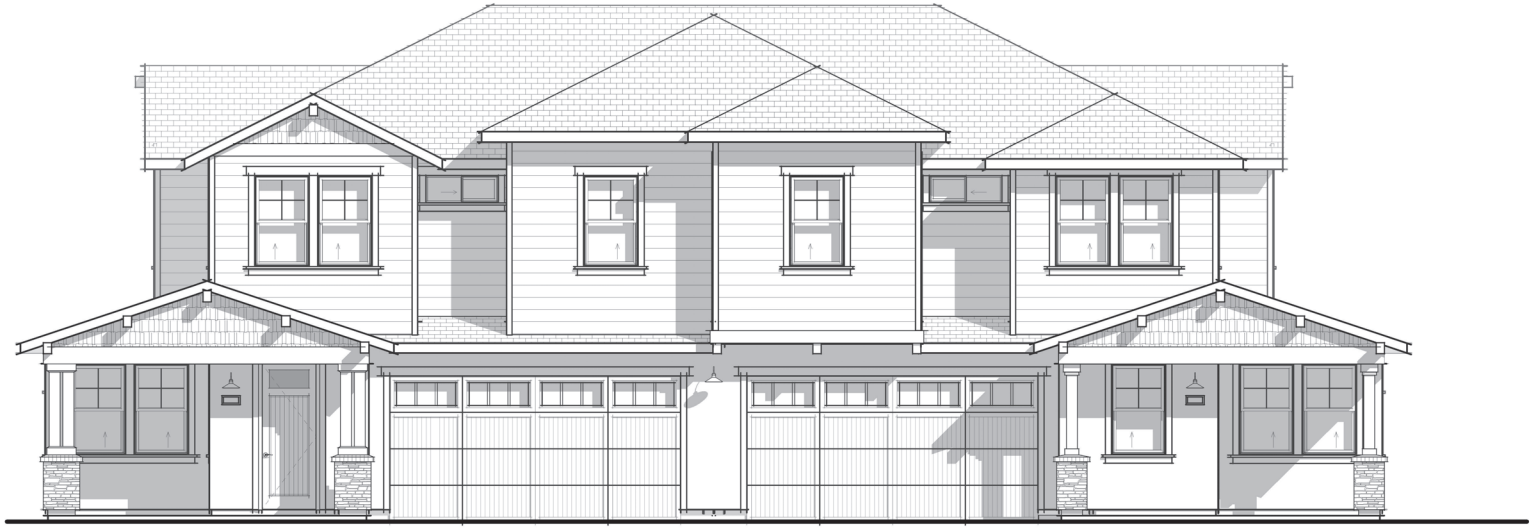
- DECORATIVE BOXED COLUMN

Source: Dahlin, (2019)



A - MODERN CRAFTSMAN

ROOF MATERIAL:

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- DECORATIVE WOOD COLUMN
- MANUFACTURERED STONE VENEER PEDESTAL WITH PRECAST STONE CAP

2 PLAN 4 FRONT ELEVATION, ELEVATION A, MODERN CRAFTSMAN

Source: Dahlin, (2019)

The Morgan Hill Caltrain station is located on Depot Street, approximately one mile southwest of the project site. Public recreational facilities in the project vicinity include: Diana Park, approximately 0.3 miles southwest of the site, the Morgan Hill Community Garden approximately 0.4 miles southwest of the site, and El Toro Elementary School facilities approximately 0.3 miles northwest of the project site.

OTHER AGENCIES WHOSE APPROVAL IS REQUIRED

The City of Morgan Hill is the lead agency for the proposed project. There are no responsible agencies having discretionary approval or jurisdiction by law over natural resources affected by the project.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages:

	Aesthetics		Agriculture Resources	X	Air Quality
X	Biological Resources		Cultural Resources		Geology/Soils
	Greenhouse Gases	X	Hazards & Hazardous Materials	X	Hydrology/Water Quality
	Land Use/Planning		Mineral Resources		Noise
	Population/Housing		Public Services		Recreation
	Transportation/Traffic		Tribal Cultural Resources		Utilities/Service Systems
	Mandatory Findings of Significance				

DETERMINATION: (TO BE COMPLETED BY THE LEAD AGENCY)

On the basis of this initial evaluation:

	I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
X	I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
	I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
	I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
	I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Joey Dinh, Associate Planner

7/17/19
Date

EVALUATION OF ENVIRONMENTAL IMPACTS

Issues:

Issues (and Supporting Information Sources)	Potentially Significant Impact	Less than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
1. Aesthetics - Would the project:				
a) Have a substantial adverse effect on a scenic vista?				X
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?				X
c) Substantially degrade the existing visual character or quality of the site and its surroundings?				X
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?			X	

1a. Scenic Vistas

The project site consists of 4.84 acres of relatively level land north of the intersection of Diana Avenue and Lotus Way within an urbanized portion of Morgan Hill. The southern portion of the property has been improved with two homes. The larger of the homes is set back approximately 30 feet from Diana Avenue and is partially screened from street views by front yard landscaping and street trees along Diana Avenue. The second home is located immediately north of the first residence and is primarily visible from Diana Avenue west of the project site, and from Lotus Way, adjoining the site. A significant portion of the site (93 percent) has remained undeveloped.

The project site is surrounded by residential development. Wooden fencing and landscaping in the rear and side yards of homes along Serene Drive, Belletto Drive, Weichert Drive, and Carriage Lamp Way separate adjoining residential uses from the project site. Other residential structures and mature trees filter and screen public views in the project vicinity. Due to the site's distance from the Santa Cruz Mountains to the west and the Diablo range to the east, intervening urban development interrupts potential views that might constitute a scenic vista. Motorists traveling west on Diana Avenue near the site have intermittent glimpses of El Toro Mountain to the west; however, these views are also screened by mature trees. Consequently, with potential views of scenic vistas obscured by surrounding residential neighborhoods and extensive landscaping, the proposed project would have no substantial adverse effects on scenic resources.

1b. Scenic Resources Within a State Scenic Highway

There are no state-designated scenic highways in the project vicinity and, therefore, the project would not affect scenic resources within a state scenic highway.

1c. Visual Character

The visual quality and character of the project site is defined by its previous agricultural uses and the current use as mostly undeveloped land, while the visual character of the project area setting is formed by the suburban residential uses surrounding the project site. Private views of the project site are primarily available from the side and rear yards of homes on Dakota Drive, and from two-story homes surrounding the subject property. Public views of the project site are available to travelers on Diana Avenue, Lotus Way, Dakota Drive, Weichert Drive, and Juliann Way.

Backyard solid wood fences approximately 5 to 7 feet in height and landscaping limit views of the project site from backyards of surrounding residences to the east and north of the property, fronting on Belletto Drive, Serene Drive, Weichert Drive, and Carriage Lamp Way. Two-story homes on these streets generally have southern and western views of the site that are filtered by backyard landscaping and fencing on these properties. In addition, similar screening obstructs side and rear yard views of the project site from residences on Lotus Way and Dakota Drive.

The development of the project site with 24 single-family residential units would change the character of the project site from mostly undeveloped to a suburban residential subdivision, consistent with the surrounding uses. The project proposal entails the removal of all existing buildings and most of the trees. The current visual character of the site as seen from the homes on surrounding streets would be replaced by views of one-story and two-story single-family homes.

Proposed landscaping on the private lots and proposed street tree planting would moderate views of the proposed residences from the surrounding neighborhoods. The landscaping plans for the project include street trees along Diana Avenue. The visual character of the site would change from mostly undeveloped agricultural or semi-rural use, to a suburban residential neighborhood. This change in visual character would be consistent with the existing character of the surrounding neighborhoods and consistent with the City's land use plans and zoning. Consequently, the proposed project would not substantially degrade the existing visual character or quality of the site and its surroundings.

1d. Light or Glare

The project site currently produces lighting effects through existing residential use fronting on Diana Avenue. The development of a new cul-de-sac and internal roads along with the proposed additional housing on the site would create new light sources. Proposed exterior lighting for new residences will need to conform to the design standards stipulated by City Building Code, which will ensure that project lighting would not adversely affect adjacent properties.

Issues (and Supporting Information Sources)	Potentially Significant Impact	Less than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
2. Agriculture and Forestry Resources – In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Dept. of Forestry and Fire Protection regarding the state's inventory of forest land, and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?			X	
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?				X

Issues (and Supporting Information Sources)	Potentially Significant Impact	Less than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined in Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?				X
d) Result in the loss of forest land or conversion of forest land to non-forest use?				X
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?				X

2a, 2b, 2c, 2d, 2e. Farmland, Agricultural, and Forestry Uses

A California Land Conservation Contract (Williamson Act) was established on the property on February 24, 1978. A Notice of Non-Renewal of the contract was filed with the City of Morgan Hill on May 19, 2015. The property owner petitioned the City for a cancellation in 2017. The Williamson Act cancellation process is regulated pursuant to California Government Code 51280-51287. Government Code Section 51282 outlines the specific requirements for tentative cancellation of a contract including five "consistency" findings that must be made by the City Council. The California Department of Conservation (DOC) provides comments on completed petitions for cancellation that must be considered by the City Council prior to acting on the petition. The DOC supported the subject petition.

The City Council approved the tentative cancellation on December 6, 2017 (Resolution No. 17-100) determining that there was no agricultural land adjacent to the site that could potentially be converted from agricultural use. In addition, the parcel was considered small as it was below the 10-acre threshold for sustaining agricultural use established within Section §66474.4(a) of the Subdivision Map Act. The cancellation allowed for an alternative use which is consistent with the applicable provisions of the Morgan Hill General Plan. Residential development is proposed as an alternative use which is consistent with the applicable provisions of the City of Morgan Hill 2035 General Plan which designates the site as "Residential Detached Medium", allowing up to 7 units per net acre. The cancellation would not result in discontinuous patterns of urban development as the property is located within the City of Morgan Hill's Urban Service Area and entirely surrounded by existing urban development.

A Certificate of Tentative Cancellation of Land Conservation Contract has been recorded on the property. Contingencies and conditions are to be satisfied prior to final cancellation.

It should be noted that the City formulated agricultural policies and prepared an implementation program to guide the conservation of agricultural lands within the City's Sphere of Influence area.[1] The City has designated agricultural lands in the Southeast Quadrant of the community for conservation and continued agricultural use.

[1] City of Morgan Hill, 2011. *Morgan Hill Agricultural Policies and Implementation Program*. December 22.

Issues (and Supporting Information Sources)	Potentially Significant Impact	Less than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
3. Air Quality - Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?			X	
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?		X		
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions, which exceed quantitative thresholds for ozone precursors)?			X	
d) Expose sensitive receptors to substantial pollutant concentrations?			X	
e) Create objectionable odors affecting a substantial number of people?			X	

3a. Air Quality Planning

The project site is located in the San Francisco Bay Area Air Basin (SFBAAB). The governing air quality plan for the SFBAAB is the 2017 Bay Area Clean Air Plan (2017 CAP), which was adopted by the Bay Area Air Quality Management District (BAAQMD) in April 2017. The 2017 CAP provides a regional strategy to protect public health and the climate. The plan describes how the BAAQMD will continue our progress toward attaining all state and federal air quality standards and eliminating health risk disparities from exposure to air pollution among Bay Area communities. The CAP defines a vision for transitioning the region to a post-carbon economy needed to achieve ambitious greenhouse gas reduction targets for 2030 and 2050, and provides a regional climate protection strategy that will put the Bay Area on a pathway to achieve those GHG reduction targets.

The 2017 CAP includes a wide range of control measures designed to decrease air pollutant emissions that are most harmful to Bay Area residents, such as particulate matter, ozone, and toxic air contaminants. This is to reduce emissions of methane and other "super-GHGs" that are potent climate pollutants in the near-term and to decrease emissions of carbon dioxide by reducing fossil fuel combustion. Control measures in the following sectors pertain to the proposed project: energy, buildings, waste management, and water. Building and energy measures do not relate to individual development projects but focus on incentive programs and model ordinances for communities to adopt to promote decarbonizing electricity production, decreasing electricity demand, identifying barriers to effective local implementation of the CAL-Green (Title 24) building energy code, decarbonizing buildings, mitigating urban heat islands, diverting green waste, recycling, waste reduction, and water conservation. None of these measures would specifically pertain to the proposed project.

3b. Air Quality Standards

Regulatory and Planning Framework. The BAAQMD is responsible for attaining and/or maintaining air quality in the SFBAAB within Federal and State air quality standards. Specifically, the BAAQMD has the responsibility to monitor ambient air pollutant levels throughout the Basin and to develop and implement strategies to attain the applicable Federal and State standards. In May 2017, the BAAQMD released updated CEQA Air Quality Guidelines, which includes revisions made to the BAAQMD's 2010 Guidelines to address the California Supreme Court's 2015 opinion in *California Building Industry Association vs. BAAQMD, 62 Cal.4th 369.* The BAAQMD has initiated an update of the current CEQA Air Quality Guidelines.

Significance Thresholds. Exercising its own discretion as lead agency and similar to multiple other San Francisco Bay Area jurisdictions, the City has decided to rely on the thresholds recommended by the BAAQMD in its 2017 CEQA Guidelines.[2] The thresholds have been developed by the BAAQMD in order to attain state and national ambient air quality standards. Therefore, projects below these thresholds would not violate air quality standards and would not contribute substantially to an existing or projected air quality violation:

- NO_x and ROG: 54 pounds/day
- PM_{10}: 82 pounds/day
- $PM_{2.5}$: 54 pounds/day

In addition to establishing the above significance thresholds for criteria pollutant emissions, the BAAQMD also recommended the following quantitative thresholds to determine the significance of construction-related and operational emissions of toxic air contaminants from individual projects and cumulative sources on cancer and non-cancer health risks:

- Increased cancer risk of >10.0 in a million for individual projects and >100 in a million (from all local sources) for cumulative sources;
- Increased non-cancer risk of >1.0 Hazard Index (Chronic or Acute) for individual projects and >10.0 Hazard Index (from all local sources) for cumulative sources; and
- Ambient $PM_{2.5}$ increase: >0.3 µg/m^3 annual average for individual projects and >0.8 µg/m^3 annual average (from all local sources) for cumulative sources.

Project Emissions. The BAAQMD provides screening criteria when evaluating projects for potential significance of construction-related and operational criteria pollutant emissions. The BAAQMD's screening level sizes are 325 single-family residential units for operational criteria air pollutant emissions and 114 single-family units for construction-related criteria air pollutant emissions. At or above these sizes, a project would have the potential to significantly affect regional air quality and a detailed air quality impact assessment would need to be prepared for the project. These screening criteria provide a conservative indication of whether a proposed project could exceed the significance thresholds. The project would involve the development of 24 single-family residential homes and would not exceed the BAAQMD's screening criteria for potential significance of construction-related and operational criteria pollutant emissions. However, the BAAQMD recommends that all Basic Construction Mitigation Measures be implemented for all development projects, whether or not construction-related emissions exceed these screening criteria. Therefore, the project's construction-related and operational increases in criteria pollutant emissions would be less than significant with implementation of Mitigation Measure AQ-1.

3c. Cumulative Air Quality Impacts

To address cumulative impacts on regional air quality, the BAAQMD has established thresholds of significance for construction-related and operational criteria pollutants and precursor emissions. These thresholds represent the levels at which a project's individual emissions of criteria pollutants and precursors would result in a cumulatively considerable contribution to the SFBAAB's existing air quality conditions. If daily average or annual emissions exceed these thresholds, the project would result in a cumulatively significant impact. Since the project's construction-related and operational criteria pollutant emissions would not exceed BAAQMD screening criteria, the project's contribution to regional air quality is considered to be less than cumulatively considerable, and therefore, less than significant.

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[2] Bay Area Air Quality Management District, *California Environmental Quality Act, Air Quality Guidelines*, May, 2017. Available online at: http://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en.

In addition, when the project's construction-related diesel particulate matter (DPM) emissions are considered with other existing stationary and mobile sources of toxic air contaminants (TACs), the project's contribution to cumulative emissions would not contribute to cumulative construction-related risk and hazard impacts would not be cumulatively considerable--a less-than-significant impact (see Section 3d below for more discussion).

3d. Exposure of Sensitive Receptors

Sensitive receptors are defined as facilities or land uses that include members of the population that are particularly sensitive to the effects of air pollutants, such as children, the elderly, and people with illnesses. Examples of these sensitive receptors are residences, schools, hospitals, and daycare centers. The California Air Resources Board (CARB) has identified the following groups of individuals as the most likely to be affected by air pollution: the elderly over 65, children under 14, athletes, and persons with cardiovascular and chronic respiratory diseases, such as asthma, emphysema, and bronchitis. Adjacent residences are considered to be the closest sensitive receptors to project construction.

Operation of the proposed residential use would not generate toxic air contaminants (TACs) that would pose a health risks to adjacent or nearby uses. However, during project construction, combustion emissions from operation of off-road construction equipment on the project site would be generated and could expose adjacent and nearby receptors to diesel particulate matter (DPM) and other toxic air contaminants (TACs) that are associated with various health risk factors. A risk and hazard analysis was completed in 2014 for the 52-unit Diana-Bagoye (Estancia) project, which is located 225 feet west of the project site. The analysis determined that the construction-related risk and hazard impact of that project was less than significant.[3] Since the proposed project is less than half that size, would involve the use of similar construction equipment, and involve less equipment operation because of its smaller size, the proposed project is also considered to have a less-than-significant construction-related risk and hazard impact. Therefore, the project's construction-related DPM emissions would result in a temporary health risk that would be less than significant and no mitigation would be required.

In addition to the above construction-related risk and hazard impacts, sensitive receptors in the project vicinity would be exposed to cumulative risk and hazard impacts from the project's construction-related emissions in combination with existing stationary and mobile sources within approximately 1,000 feet of the project area. Therefore, in addition to project construction, possible local stationary or vehicular source emissions must be added to this concentration to determine the cumulative total. Specifically, the BAAQMD requires that existing stationary and mobile emissions sources (i.e. freeways or roadways with more than 10,000 vehicles per day) within 1,000 feet of the project area also be considered. Any potential cumulative health risk would, therefore, derive from project activities plus any existing identified risk sources within the project vicinity. There are no such stationary or mobile sources located within 1,000 feet of the project site, and therefore, the project's contribution to cumulative construction-related risk and hazard impacts would be less than cumulatively considerable--a less-than-significant impact.

3e. Odors

According to the BAAQMD CEQA Guidelines, land uses associated with odor complaints typically include wastewater treatment plants, landfills, confined animal facilities, composting stations, food manufacturing plants, refineries, and chemical plants. The project would not include any uses identified by the BAAQMD as being associated with odors. No new or unusual sources of nuisance odors would be

[3] City of Morgan Hill, *Initial Study: Diana Avenue – Bagoye, Morgan Hill, CA*, May 2014. Available for public review at the City's Community Development Department located at 17575 Peak Avenue. The risk and hazard analysis for that project estimated the cancer risk to be 6.3 in a million for infants, which have the highest age sensitivity factor (below the BAAQMD-recommended significance threshold of greater than 10.0 in a million), the non-cancer chronic hazard index to be 0.015 (below the BAAQMD-recommended threshold hazard index of greater than 1.0), and the annual average ambient $PM_{2.5}$ level to be 0.0737 $\mu g/m^3$ (below the BAAQMD-recommended threshold level of 0.3 $\mu g/m^3$).

associated with the proposed residential development. Therefore, the project's potential for nuisance odor problems would be less than significant.

During project construction, however, nuisance diesel odors associated with operation of diesel construction equipment on-site (primarily during initial grading phases) may occur, but this effect would be localized, sporadic, and short-term in nature. Therefore, temporary impacts from nuisance diesel odors on adjacent residential receptors would be less than significant.

Mitigation Measure – Air Quality (AQ)

Mitigation Measure. Although the project's construction-related air pollutant emissions would not exceed the BAAQMD's applicable significance thresholds, the following measure is recommended by the BAAQMD to reduce the project's construction emissions:

AQ-1: ***Basic Construction Measures.*** *To limit the project's construction-related dust and criteria pollutant emissions, the following BAAQMD-recommended Basic Construction Mitigation Measures shall be included in the project's grading plan, building plans, and contract specifications:*

a. *All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.*

b. *All haul trucks transporting soil, sand, or other loose material off-site shall be covered.*

c. *All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.*

d. *All vehicle speeds on unpaved roads shall be limited to 15 mph.*

e. *All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible.*

f. *Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to five minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.*

g. *All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.*

h. *Post a publicly visible sign with the telephone number and person to contact at the City regarding dust complaints. This person shall respond and take corrective action within 48 hours. The BAAQMD's phone number shall also be visible to ensure compliance with applicable regulations.*

Issues (and Supporting Information Sources)	Potentially Significant Impact	Less than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
4. Biological Resources - Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?		X		

Issues (and Supporting Information Sources)	Potentially Significant Impact	Less than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?			X	
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?				X
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?				X
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?			X	
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?			X	

A Biological Resources Report[4] was prepared for the project by Wood Biological Consulting in February 2019 (included as **Attachment 1)**. Information regarding the numerous trees on the site was compiled by Smith Tree Specialists, Inc. and presented in the arborist's report[5] dated January 30, 2019 (included as **Attachment 2)**. In addition to the assessment of the biological resources on the project site, these reports include recommendations for the preservation and conservation of these resources through project site design.

The study area focused on two parcels with 93 percent of the land undeveloped situated north of the intersection of Diana Avenue and Lotus Way in Morgan Hill. The two parcels total 4.84 acres, with level topography at an elevation of between 361 and 367 feet above mean sea level. Residential neighborhoods border the majority of the site. Historically, the parcels and surrounding area were farmed as orchards and row crops. A large portion of the property that has remained undeveloped is subject to annual disking for weed control. There are several large trees and a few small shrubs on the on the site.

4a, 4b, 4c, 4d. Special-Status Species, Sensitive Natural Communities and Wetlands, Fish and Wildlife Movement, Corridors, Nursery Sites

Plant Communities and Wildlife Habitats. Vegetation on the property consists of non-native annual grassland perpetuated by annual weed maintenance and dominated by the non-native grasses slender oats (*Avena barbata*), ripgut brome (*Bromus diandrus*), and Italian rye grass (*Festuca perennis*), and the non-native forbs black mustard (*Brassica nigra*), curly dock (*Rumex crispus*), white-stemmed filaree (*Erodium moschatum*), common henbit (*Lamium amplexicaule*), and bur clover (*Medicago polymorpha*). Several coast live oak trees (*Quercus agrifolia*), a large Monterey pine (*Pinus radiata),*

[4] Wood Biological Consulting, 2019. *Biological Constraints Report, 815 Diana Avenue, Morgan Hill.* February 27.

[5] Smith Tree Specialists, Inc., 2019. *Arborist Report for Property at Diana Ave., Morgan Hill.* January 30.

Bailey acacia (*Acacia baileyana*), and several smaller ornamental trees and shrubs also are present. Few native plant species were observed, limited to the few individuals of coast live oak and coyote brush. The majority of the site conforms to the California annual grassland association described in Sawyer et al (2009) or non-native annual grassland (Holland, 1986).

Observations of wildlife or their sign[6] were limited to transient species moving within the site during the limited reconnaissance survey. A variety of common bird species are likely to breed or forage on site, and several species of reptiles and other small mammals are expected to be occasionally present. Common and characteristic wildlife species of the region and habitat in the study area include American crow (*Corvus brachyrhynchos*), American robin (*Turdus migratorius*), Anna's hummingbird (*Calypte anna*), black phoebe (*Sayornis nigricans*), Botta's pocket gopher (*Thomomys bottae*), eastern fox squirrel (*Sciurus niger;* nest observed), California towhee (*Melozone crissalis*), Eurasian collared dove (*Streptopelia decaocto*), mourning dove (Zenaida macroura), northern mockingbird (*Mimus polyglottos*), California scrub jay (*Aphelocoma californica*), and white-crowned sparrow (*Zonotrichia leucophrys*). No passerine or raptor nests were detected on the property or in the vicinity.

No potentially jurisdictional aquatic features, including wetlands, ponds, streams or riparian habitat is present within the study area.

Special-status Species. Plant and animal species are considered to have special status is they are listed or proposed for listing under the federal or State endangered species acts, meet the definition of Rare or Endangered under California Environmental Quality Act (CEQA), or are considered rare locally. Certain natural plant communities, wildlife habitats, landscape features are considered to have special status due to their restricted occurrence in the State, their tendency to support rare plant or animal species, or because impacts are restricted or otherwise regulated under federal, State, or local laws or ordinances. Pursuant to the guidelines of CEQA, any project that could result in significant adverse effects on special-status biological resources must, in most cases, incorporate measures to reduce potential impacts to a less-than-significant level.

Based on a review of the databases listed above, a total of 58 special-status plant species and 50 special-status animal species are known to occur in the project region. In addition, a total of 17 bird species of conservation concern and numerous migratory bird species are expected to occur in the project region. Complete data base print-outs are included in Attachment 1. The project site is not located within designated Critical Habitat for any federally listed plant or animal species.

Plant Species. Based on location information contained in the California Natural Diversity Database (CNDDB), no special-status plant species have been recorded within a one-mile radius of the study area (Attachment 1, Figure 3). Ten species are located within three miles, most of which are strongly associated with serpentine soils that are not present on or near the parcels. Likewise, the absence of serpentine soil precludes the occurrence on the property of the Serpentine Bunchgrass plant community, which is considered sensitive. Similarly, no riparian habitat is present on the site, precluding the sensitive plant community Sycamore Alluvial Woodland. No special-status plant species are considered to have any likelihood of occurring on site due to the absence of serpentine soil, historic and ongoing disking or mowing of the herbaceous layer, and the dominance of non-native and invasive plants on site. The performance of a focused floristic study in support of future analysis pursuant to CEQA is not warranted.

Based on the presence of suitable or marginally suitable grassland habitat, four additional special status plant species have low potential to occur in the study area. All are unlikely due to modification of the habitat through cultivation of orchard trees and annual disking of the herbaceous vegetation where these species would occur, or are known from populations a considerable distance from the study area (i.e., in

[6] Animal signs include tracks, vocalization, scat, white-wash, feathers, fur, shed skin, nests, burrows, prey remains, odor, and dead individuals.

the Mt. Hamilton range, 10 miles north of the study area, or from hills east and west of Santa Clara Valley, more than 15 miles west and north of the study area. They are bent-flowered fiddleneck (*Amsinckia lunaris*), Tracy's eriastrum (*Eriastrum tracyi*), San Benito pentachaeta (*Pentachaeta exilis* ssp. *aeolica*), and two-fork clover (*Trifolium amoenum*). In addition, several plant species with California Rare Plant Ranks (CRPR) 4 also have low potential to occur in the study area, but are similarly unlikely due to modification of habitat and distance from known populations.

Two special-status plant communities have been recorded in the project region. Serpentine Bunchgrass and Sycamore Alluvial Woodland are both associated with specific habitat conditions (serpentine soil and riparian floodplain), which are absent from the study area. Therefore, no special status plant communities are present or have the potential to occur in the study area.

Animal Species. Based on location information contained in the CNDDB, four special-status animal species have been recorded within a one-mile radius of the study area (Attachment 1, Figure 4). Western bumble bee (*Bombus occidentalis*) was documented nearby in 1947, but is presumed absent because it nests in burrows, which would be routinely disturbed by annual disking or mowing. A very old record from 1894 for coast horned lizard (*Phrynosoma blainvillii*) was documented in the general location of Morgan Hill, but suitable habitat is not present in the study area. Burrowing owl was documented up until 2003 at a school located 0.5 miles west of the project site, but is considered possibly extirpated (CNDDB, 2019).

A record for California tiger salamander (*Ambystoma californiense*) documented in 1981 (Occurrence #42) is within one mile to the northwest, but was in an area developed as residential housing since the observation. This record is considered extirpated (CNDDB, 2019). More recent observations of California tiger salamander, California red-legged frog (*Rana draytonii*), and western pond turtle (*Emys marmorata*) occurred at Chesbro Reservoir over 3.5 miles to the west-southwest, and on private land 2.5 miles southwest of the study area, but separated from it by residential development major roads, including Monterey Road. American badger has been documented relatively recently just over one mile from the study area, near the intersection of Cochrane Road and U.S. Highway 101. Suitable habitat is not present in neighboring lands, and the study area is separated from suitable habitat by residential development. No large burrows were observed on the project site. San Francisco dusky-footed woodrat and white-tailed kite (*Elanus leucurus*) have been recorded in riparian habitat associated with Coyote Creek, located approximately 2.0 miles north of the study area, and separated from it by residential and commercial development, major roads, and U.S. Highway 101. No nests of dusky-footed wood rat are present within the study area, and no raptor nests were observed.

Based on the presence of suitable or marginally suitable habitat, a total of 12 target special-status animals are considered to have a potential to occur in the study area. This includes nine birds (Allen's hummingbird [*Selasphorus sasin*], Cooper's hawk [*Accipiter cooperi*], Lawrence's goldfinch [*Carduelis lawrencei*], Nuttall's woodpecker [*Picoides nuttallii*], oak titmouse [*Baeopholus inornatus*], rufous hummingbird [*Selasphorus rufus*], song sparrow (*Melospiza melodia*), spotted towhee [*Pipilo maculatus clementae*]), and white-tailed kite [*Elanus leucurus*]), and three mammals hoary bat [*Lasiurus cinereus*], pallid bat [*Antrozous pallidus*], and Townsend's big-eared bat [*Corynorhinus townsendii*]). Although no special status bats were identified in the wildlife agency databases, several large trees had fissured bark or cavities that could support bat roosts, and the detached garage has crevices and gaps between its roofing and walls. However, no evidence of occupation was observed in and around these trees or structure. The main house has closed eaves and no gap in the roofing, therefore, does not provide bat roosting habitat.

4e. Tree and Biological Protection Ordinances

The City of Morgan Hill recognizes the importance of trees to the community and has established policies and guidelines for the preservation of native plants in the Natural Resources and Environment Element of the General Plan. Specifically, Goal NRE 6 and Policy NRE-6.4 of the Element state:

- **GOAL NRE-6 Protection of native plants, animals, and sensitive habitats.**

- **Policy NRE-6.4: Tree Preservation and Protection.** Preserve and protect mature, healthy trees whenever feasible, particularly native trees, historically significant trees, and other trees which are of significant size or of significant aesthetic value to the immediate vicinity or to the community as a whole.

These guidelines are implemented through Chapter 12.32 of the Morgan Hill Municipal Code, Restrictions on Removal of Significant Trees. Section 12.32.020 of the Code defines the type of plant that qualifies as a "tree" and the legal protection afforded to such resources. The Section establishes the following definition:

> 12.32.020 - Definitions. G. "Ordinance Sized Tree" means any live woody plant rising above the ground with a single stem or trunk of a circumference of forty inches or more for nonindigenous species and eighteen inches or more for indigenous species measured at four and one-half 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, nonindigenous tree species in residential zones and orchards (including individual fruit trees) are exempted from the definition of tree for the purpose of this chapter.

The project arborist has identified eight ordinance-sized trees on the project site for removal: four coast live oaks and four non-native trees. The arborist report indicates that four of the eight trees are in poor condition and should be removed for safety reasons. The remaining four ordinance-sized trees would qualify for protection pursuant to Section 12.32.010.C of the Morgan Hill Municipal Code, and replacement planting is required at a one-to-one (1:1) ratio, subject to the approval of the Community Development Director (Section 12.32.070. C. of the Morgan Hill Municipal Code). The arborist's report recommends the implementation of a detailed Tree Protection Plan as a condition of project approval.

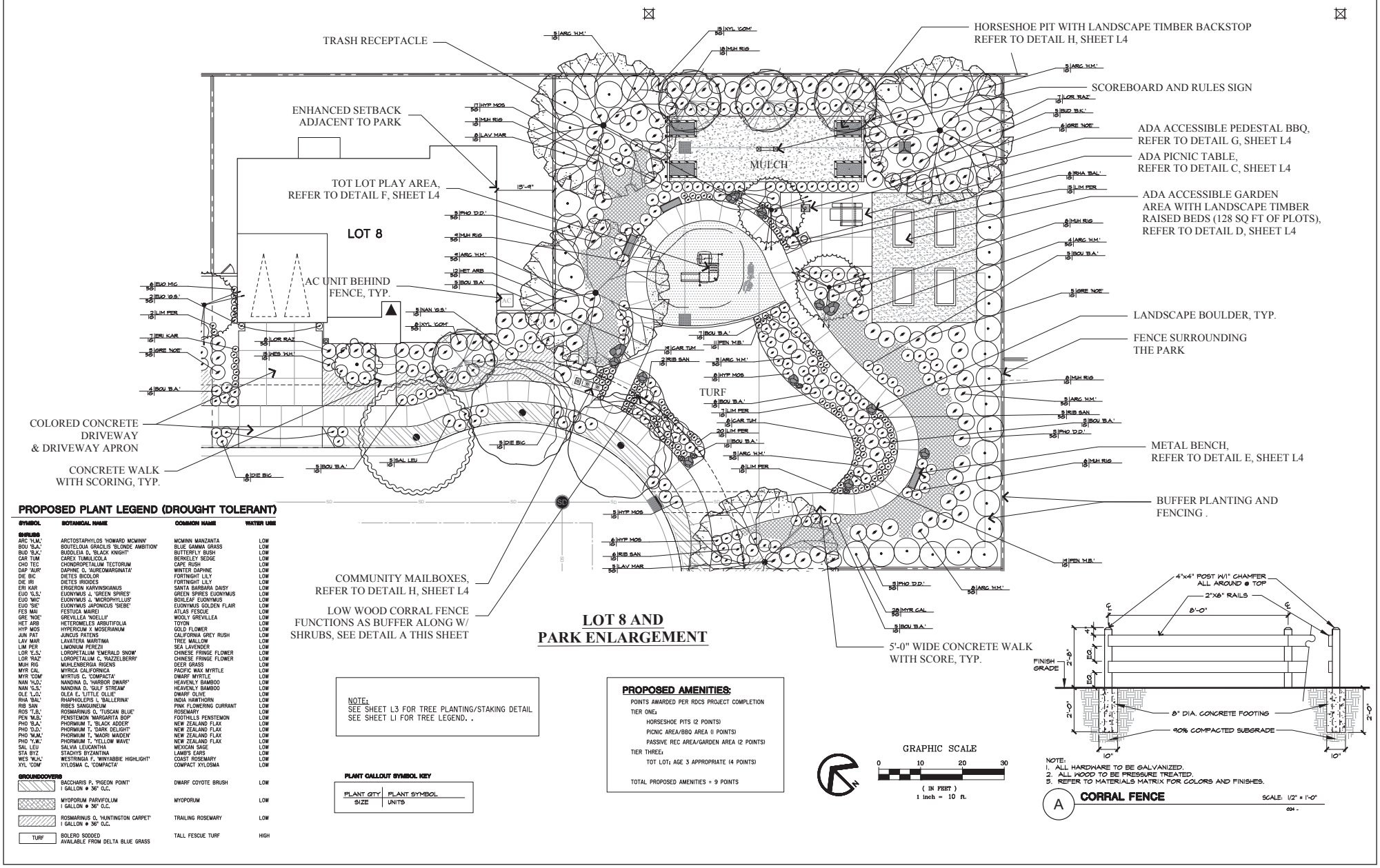
The project plans include a landscape plan (**Figure 7**) that provides for the installation of both native and non-native plants. The proposed landscape plan includes ground cover such as lawn areas, shrubs, and trees that would be consistent with the landscape plantings found within adjoining residential developments. Plantings also include street trees to be located along Diana Avenue and front yard trees along the site's southern perimeter adjoining Diana Avenue. Landscape plantings would also extend into front yards and along the internal loop road on the site.

4f. Habitat Conservation Plans

The Santa Clara Valley Habitat Plan, administered by the Santa Clara County Habitat Agency[7], provides the cities of Gilroy, Morgan Hill, and San José, the County of Santa Clara, the Santa Clara Valley Transportation Authority, the Santa Clara Valley Water District and the Habitat Agency with permits for project-specific impacts to Habitat Plan species. The County and cities can extend their permits to activities on private property through a standardized and streamlined permitting process. The Plan removes the need to obtain wildlife agency approvals and reduces the number and scope of required biological studies. Fees are used to purchase lands for habitat conservation and carry out other Plan implementation tasks.

The Habitat Plan classifies the land cover of the larger undeveloped parcel as Golf Courses / Urban Parks, which would be inaccurate, but consistently applied to small holdings of former agricultural lands surrounded by more recent residential and/or commercial development. The smaller parcel has been classified as Urban-Suburban (Attachment 1, Figure 5). The present site reconnaissance survey confirmed that the appropriate land cover type for the larger parcel would be Rural Residential.

[7] Available online at http://scv-habitatagency.org/



PROPOSED PLANT LEGEND (DROUGHT TOLERANT)

SYMBOL	BOTANICAL NAME	COMMON NAME	WATER USE
SHRUBS			
ARC 'H.M.'	ARCTOSTAPHYLOS 'HOWARD MCMINN'	MCMINN MANZANITA	LOW
BOU 'B.A.'	BOUTELOUA GRACILIS 'BLONDE AMBITION'	BLUE GAMMA GRASS	LOW
BUD 'B.K.'	BUDDLEIA D. 'BLACK KNIGHT'	BUTTERFLY BUSH	LOW
CAR TUM	CAREX TUMULICOLA	BERKELEY SEDGE	LOW
CHO TEC	CHONDROPETALUM TECTORUM	CAPE RUSH	LOW
DAP 'AUR'	DAPHNE O. 'AUREOMARGINATA'	WINTER DAPHNE	LOW
DIE BIC	DIETES BICOLOR	FORTNIGHT LILY	LOW
DIE IRI	DIETES IRIOIDES	FORTNIGHT LILY	LOW
ERI KAR	ERIGERON KARVINSKIANUS	SANTA BARBARA DAISY	LOW
EUO 'G.S.'	EUONYMUS J. 'GREEN SPIRES'	GREEN SPIRES EUONYMUS	LOW
EUO 'MIC'	EUONYMUS J. 'MICROPHYLLUS'	BOXLEAF EUONYMUS	LOW
EUO 'SIE'	EUONYMUS JAPONICUS 'SIEBE'	EUONYMUS GOLDEN FLAIR	LOW
FES MAI	FESTUCA MAIREI	ATLAS FESCUE	LOW
GRE 'NOE'	GREVILLEA 'NOELLII'	WOOLY GREVILLEA	LOW
HET ARB	HETEROMELES ARBUTIFOLIA	TOYON	LOW
HYP MOS	HYPERICUM X MOSERIANUM	GOLD FLOWER	LOW
JUN PAT	JUNCUS PATENS	CALIFORNIA GREY RUSH	LOW
LAV MAR	LAVATERA MARTIMA	TREE MALLOW	LOW
LIM PER	LIMONIUM PEREZII	SEA LAVENDER	LOW
LOR 'E.S.'	LOROPETALUM 'EMERALD SNOW'	CHINESE FRINGE FLOWER	LOW
LOR 'RAZ'	LOROPETALUM C. 'RAZZELBERRI'	CHINESE FRINGE FLOWER	LOW
MUH RIG	MUHLENBERGIA RIGENS	DEER GRASS	LOW
MYR CAL	MYRICA CALIFORNICA	PACIFIC WAX MYRTLE	LOW
MYR 'COM'	MYRTUS C. 'COMPACTA'	DWARF MYRTLE	LOW
NAN 'H.D.'	NANDINA D. 'HARBOR DWARF'	HEAVENLY BAMBOO	LOW
NAN 'G.S.'	NANDINA D. 'GULF STREAM'	HEAVENLY BAMBOO	LOW
OLE 'L.O.'	OLEA E. 'LITTLE OLLIE'	DWARF OLIVE	LOW
RHA 'BAL'	RHAPHIOLEPIS I. 'BALLERINA'	INDIA HAWTHORN	LOW
RIB SAN	RIBES SANGUINEUM	PINK FLOWERING CURRANT	LOW
ROS 'T.B.'	ROSMARINUS O. 'TUSCAN BLUE'	ROSEMARY	LOW
PEN 'M.B.'	PENSTEMON 'MARGARITA BOP'	FOOTHILLS PENSTEMON	LOW
PHO 'B.A.'	PHORMIUM T. 'BLACK ADDER'	NEW ZEALAND FLAX	LOW
PHO 'D.D.'	PHORMIUM T. 'DARK DELIGHT'	NEW ZEALAND FLAX	LOW
PHO 'M.M.'	PHORMIUM T. 'MAORI MAIDEN'	NEW ZEALAND FLAX	LOW
PHO 'Y.W.'	PHORMIUM T. 'YELLOW WAVE'	NEW ZEALAND FLAX	LOW
SAL LEU	SALVIA LEUCANTHA	MEXICAN SAGE	LOW
STA BYZ	STACHYS BYZANTINA	LAMB'S EARS	LOW
WES 'W.H.'	WESTRINGIA F. 'WINYABBIE HIGHLIGHT'	COAST ROSEMARY	LOW
XYL 'COM'	XYLOSMA C. 'COMPACTA'	COMPACT XYLOSMA	LOW
GROUNDCOVERS			
	BACCHARIS P. 'PIGEON POINT' 1 GALLON @ 36" O.C.	DWARF COYOTE BRUSH	LOW
	MYOPORUM PARVIFOLIUM 1 GALLON @ 36" O.C.	MYOPORUM	LOW
	ROSMARINUS O. 'HUNTINGTON CARPET' 1 GALLON @ 36" O.C.	TRAILING ROSEMARY	LOW
TURF	BOLERO SODDED AVAILABLE FROM DELTA BLUE GRASS	TALL FESCUE TURF	HIGH

NOTE:
SEE SHEET L3 FOR TREE PLANTING/STAKING DETAIL
SEE SHEET LI FOR TREE LEGEND. .

PLANT CALLOUT SYMBOL KEY

PLANT QTY / SIZE	PLANT SYMBOL / UNITS

PROPOSED AMENITIES:

POINTS AWARDED PER RDCS PROJECT COMPLETION
TIER ONE:
- HORSESHOE PITS (2 POINTS)
- PICNIC AREA/BBQ AREA (1 POINTS)
- PASSIVE REC AREA/GARDEN AREA (2 POINTS)

TIER THREE:
- TOT LOT: AGE 3 APPROPRIATE (4 POINTS)

TOTAL PROPOSED AMENITIES = 9 POINTS

GRAPHIC SCALE
0 10 20 30
(IN FEET)
1 inch = 10 ft.

NOTE:
1. ALL HARDWARE TO BE GALVANIZED.
2. ALL WOOD TO BE PRESSURE TREATED.
3. REFER TO MATERIALS MATRIX FOR COLORS AND FINISHES.

A **CORRAL FENCE** SCALE: 1/2" = 1'-0"

Source: Ripley Design Group, (2019)

A review of the project using the Santa Clara Valley Habitat Plan indicates that a portion of the project site (APN 726-09-002) is a covered project under the Habitat Plan and would be subject to fees of the Land Cover Fee Zone, specifically Fee Zone B (Agricultural and Valley Floor Land) (see Habitat Plan report, attached). The smaller parcel (APN 726-09-001) is considered an Urban Area and would not be subject to Land Cover Fees. With the payment of the appropriate fees, the proposed project would not be in conflict with the approved local habitat conservation plan.

The following additional fees, surveys or special habitat overlays are not mapped within the study area and would not apply:

- No Burrowing Owl fee zone
- No wetland fee zone
- No serpentine fee zone
- No required wildlife survey
- No required plant survey
- Not within a stream buffer or setback
- Not within a mapped valley oak and blue oak woodland area
- Not within an Urban Reserve System Interface Zone
- Within the Morgan Hill Urban Service Area and the Limits of Urban Growth

Mitigation Measures – Biological Resources (BIO)

The project's construction-related activities, including demolition of structures, site preparation, and grading could have potentially significant effects on special-status animal species that could be expected on the project site or using suitable habitat on-site. Implementation of the following measures would reduce these potentially significant potential impacts to special-status animals to less-than-significant levels:

BIO-1: Special-Status Bats*. Prior to the removal of mature trees or the demolition or renovation of structures, the measures outlined below shall be performed.*

a. A pre-construction survey shall be conducted by a qualified biologist to identify suitable bat roosting sites.

b. Any trees or structures determined to support or potentially support maternal roosting sites may only be removed or demolished after coordination with the CDFW and/or the USFWS. Passive exclusion of roosting bats will be required and this may only be performed during the non-breeding season (i.e., between October 1 and March 30).

c. Any trees or structures determined to provide suitable bat day or night roosting sites shall be identified and marked on site plans. Such roosting sites include snags, rotten stumps, and decadent trees with broken limbs, exfoliating bark, cavities, openings leading to interior portions of any structures. If no suitable roost sites or evidence of bat roosting are identified, impact minimization measures are not warranted. If suitable roosting sites or evidence of bat roosting are identified, the following measures shall be conducted:

i. A qualified biologist shall survey suitable roost sites immediately prior to the removal or significant pruning of any of the larger trees, or demolition or significant renovation of any structures.

ii. If the project biologist identifies suitable day or night roost sites or evidence of bat occupation, the following steps shall be followed to discourage use of the sites by bats and to ensure that any bats present are able to safely relocate.

For trees:

- *Tree limbs smaller than 7.6 cm (3 in) in diameter shall be removed and any loose bark should be peeled away.*
- *Any competing limbs that provide shelter around the potential roost site shall be removed to create as open of an area as possible.*

- *The trees shall then be undisturbed for 48 hours to allow any bats using the tree/snag to find another roost during their nocturnal activity period.*
- *The project biologist shall re-survey the trees a second time 48 hours after trimming.*
- *If no bats are present, work may proceed.*
- *If bats remain on-site, additional measures shall be prescribed by the biologist.*

For structures:

- *Depending on the location of potential roost sites and the nature of bat occupation, partial dismantling of a suspect structure may be performed to discourage use by bats. Partial dismantling may consist of the removal of siding, roof sections, and roof gables to permit air flow and exposure to sunlight. This work shall be performed under the supervision and direction of a qualified biologist.*
- *The project biologist shall re-survey the structures a second time 48 hours after performance of the partial dismantling work.*
- *If no bats are present, work may proceed.*
- *If bats remain on-site, additional measures shall be prescribed by the biologist.*

BIO-2: Special-Status Animal Species with Suitable Site Habitat*. Prior to site preparation for project construction, including the removal of mature trees, demolition of structures, and grading, the measures outlined below shall be performed.*

a. *If demolition, site clearing, grading or shrub removal or pruning are to be conducted outside of the breeding season (i.e., September 1 through January 31), no preconstruction surveys for nesting migratory birds is necessary.*

b. *If demolition, site clearing, grading or shrub removal or pruning are to be conducted during the breeding season (i.e., February 1 through August 31), a preconstruction nesting bird survey shall be conducted. The survey shall be performed by a qualified biologist no more than two weeks prior to the initiation of work. If no nesting or breeding activity is observed, work may proceed without restrictions. To the extent allowed by access, all active nests identified within 92 meters (300 feet) for raptors and 31 meters (100 feet) for passerines shall be mapped.*

c. *For any active nests found near the construction limits (i.e., 92 meters [300 feet for raptors and 31 meters [100 feet] for passerines) the project biologist shall make a determination as to whether or not construction activities are likely to disrupt reproductive behavior. If it is determined that construction is unlikely to disrupt breeding behavior, construction may proceed. If it is determined that construction may disrupt breeding, the no-construction buffer zone shall be expanded; avoidance is the only mitigation available. The ultimate size of the no-construction buffer zone may be adjusted by the project biologist based on the species involved, topography, lines of site between the work area and the nest, physical barriers, and the ambient level of human activity. If it is determined that construction activities are likely to disrupt raptor breeding, construction activities within the no-construction buffer zone may not proceed until the project biologist determines that the nest is long longer occupied.*

d. *If maintenance of a no-construction buffer zone is not feasible, the project biologist shall monitor the nest(s) to document breeding and rearing behavior of the adult birds. If it is determined that construction activities are likely to cause nest abandonment, work shall cease immediately and the CDFW and/or the USFWS Division of Migratory Bird Management shall be contacted for guidance.*

Issues (and Supporting Information Sources)	Potentially Significant Impact	Less than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
5. Cultural Resources - Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in 15064.5?				X
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to 15064.5?			X	
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?			X	
d) Disturb any human remains, including those interred outside of formal cemeteries?				X

5a. Historical Resources

The southern portion of the property has been improved with two residences, four sheds, a concrete-paved parking pad, and two gravel driveways and associated gravel parking areas. A significant portion of the site has remained undeveloped. Aerial photos of the project site indicate that a residence was developed on this property by 1939, along with outbuildings. Based upon the Phase 1 Environmental Site Assessment[8] for the property, the early buildings on the site were no longer evident in aerial photos and the current residences and outbuildings at 815 Diana Avenue (APN 726-09-001) were on the project site in 1963.

In 2006, the City of Morgan Hill compiled a comprehensive overview of the community's history to provide historic context and an assessment of potentially historic resources in the City.[9] Historic context statements are important tools for the preservation planning process. The Historic Context Statement is meant to provide the City of Morgan Hill with a means to evaluate potential resources for their associative, architectural, or historic value. Such a tool provides the City with a baseline reference for updating its local historic preservation ordinance and conducting a survey to inventory historic properties within the City boundaries as well as for developing future preservation initiatives and incentives.

The Historic Context Statement includes an inventory of historic resources in the City as well as a historic timeline for development community. Appendix B of the Statement provides a list of Morgan Hill's historic properties; none of the project site's residences are included on the City's list of historic properties.

The City's current General Plan[10] includes specific policies for the identification and preservation of historical resources. The draft environmental impact report[11] (DEIR) for the General Plan provides an updated list of historic buildings in the community, and none of the project site's residences are listed in the DEIR. Therefore, no significant impacts on historic resources would result from project implementation.

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[8] Tetra Tech, Inc., *Phase I Environmental Site Assessment: Report of Findings, Montecito Estates, Diana Avenue and Lotus Way, Morgan Hill, Riverside County (sic), California 95037,* February, 2019. Available for public review at the City's Community Development Department located at 17575 Peak Avenue.

[9] City of Morgan Hill, *Historic Context Statement for the City of Morgan Hill*, October, 2006.

[10] City of Morgan Hill, *Morgan Hill 2035 General Plan,* July 27, 2016. Available online at https://www.morgan-hill.ca.gov/75/General-Plan.

[11] City of Morgan Hill, *Morgan Hill 2035 DEIR*, January 13, 2016. Available online at https://www.morgan-hill.ca.gov/1495/MH2035-Final-EIR.

5b, 5d. Archaeological Resources and Human Remains

An archaeological literature review for the project area was performed by Holman & Associates in April 2014 for a nearby parcel within 200 feet of the project site. The results of the literature review indicated that there are no recorded historic or prehistoric resources within 0.25 miles of the project site. The project area is considered to have a low to moderate potential for the discovery of prehistoric archaeological resources. There are no recorded prehistoric sites on the subject property.

The proposed project would be subject to the provisions of City of Morgan Hill Municipal Code Section 18.60.090. This section requires that if a project is located within or adjacent to a known archaeological site, the CEQA review shall consider potentially significant impacts on archaeological resources. If appropriate, mitigation measures shall be included. in addition to the standard conditions identified in subsection B of Section 18.60.090. Subsection B stipulates that if the project is not located within or adjacent to a known archaeological site, then the project applicant has the option to complete an archaeological survey of the property to determine the appropriate mitigation to be used as conditions of project approval or comply with the Standard Conditions of Approval which shall conclusively reduce potentially significant impacts to less than significant level.

The City will require monitoring of ground-disturbing activities for archaeological resources and the reporting of appropriate treatment and disposition of such resources that may be uncovered. In the event that undocumented human remains or unknown significant historic or archaeological resources are discovered, subsection B.2. of Section 18.60.090 provides a specific protocol for the treatment of the uncovered human remains and/or resources. The protocol entails the process of identifying the human remains and the contact of appropriate parties such as the Native American Heritage Commission and the Amah Mutsun Tribal Band to determine Most Likely Descendant for further consultation on the disposition of the remains. As noted in the City's ordinance, the completion of the Standard Conditions of Approval would reduce potentially significant impacts on archaeological resources to a less than significant level. Additional assessment and discussion of the project's potential effects on Tribal Cultural Resources (TCR) is presented in Section 17.

5c. Paleontological Resources

Paleontological resources are the fossilized remains of plants and animals, including vertebrates (animals with backbones), invertebrates (e.g., starfish, clams, ammonites, and marine coral), and fossils of microscopic plants and animals (microfossils). The age and abundance of fossils depend on the location, topographic setting, and particular geologic formation in which they are found. Fossil discoveries not only provide a historic record of past plant and animal life, but may assist geologists in dating rock formations. A review of records maintained by the University of California Museum of Paleontology in Berkeley indicates that the closest paleontological resources recorded in Santa Clara County occur approximately six miles north of Morgan Hill. These resources were discovered in geologic strata dating from the Pleistocene epoch of the Quaternary Period (2.6 million to 11,700 years ago).

Geologic mapping for the proposed project indicates the site is underlain by Pleistocene alluvial fan deposits. These deposits are similar in age to those containing the recorded paleontological resources; however, the site of the discovered paleontological specimen was in the hills north of Morgan Hill. While the potential for encountering paleontological resources at the project site is considered to be low due to the distance to the closest resource, there remains the potential to unearth unknown paleontological resources at the project site. In the event that such resources are uncovered, the Standard Conditions of Approval for the mitigation of archaeological resource discovery will be applied to paleontological resources. Consequently, the project impacts on paleontological resources would be less than significant.

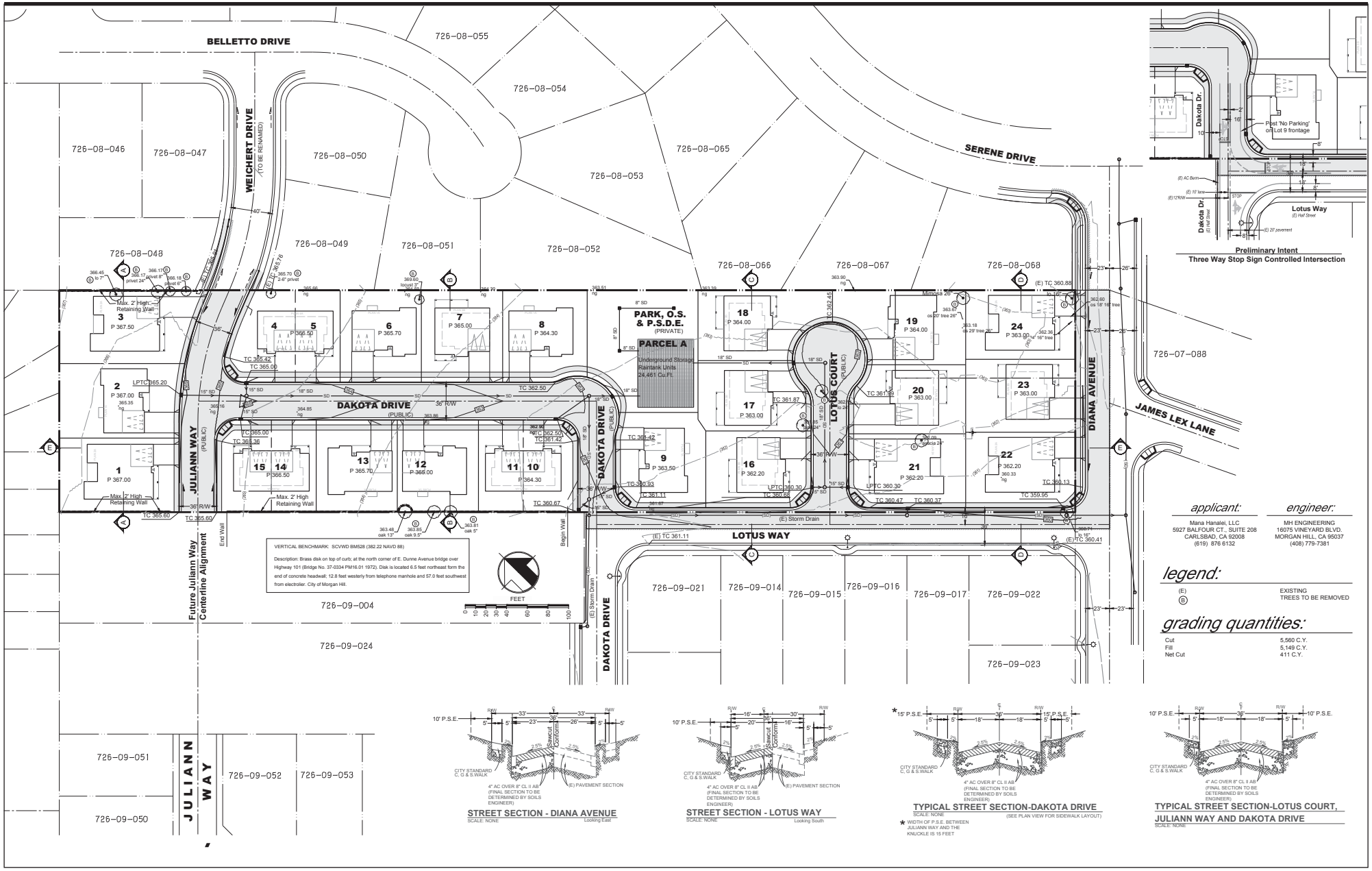
Issues (and Supporting Information Sources)	Potentially Significant Impact	Less than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
6. Geology and Soils - Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.			X	
ii) Strong seismic ground shaking?			X	
iii) Seismic-related ground failure, including liquefaction?			X	
iv) Landslides?			X	
b) Result in substantial soil erosion or the loss of topsoil?			X	
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?			X	
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?			X	
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?				X

Quantum Geotechnical, Inc. completed a geotechnical investigation for the proposed project in January 2019.[12] The geotechnical investigation included a site reconnaissance, drilling and conducting one percolation test, and the drilling five exploratory borings to depths of 16.5 to 21.5 below current ground surface to assess geologic conditions beneath the project site and provide geotechnical information for design of the proposed subdivision and other improvements.

The project site is underlain by Pleistocene alluvial sediments, which tend to consist of well consolidated silty clays with pockets of gravel dispersed throughout. The geotechnical investigation identified relatively consistent near subsurface soil conditions, consisting of firm to hard silt and gravelly silt to depth of 5 to 7 feet underlain by medium dense to dense gravelly silt to clay to the boring termination depths.

Groundwater was not encountered in any of the borings. However, groundwater levels can fluctuate seasonally and in response to precipitation. The proposed preliminary grading plan is presented in **Figure 8.**

[12] Quantum Geotechnical, Inc., *Geotechnical Investigation on Proposed Residential Development, Montecito Estates at Diana Avenue, Morgan Hill, California,* January 29, 2019. Available for public review at the City's Community Development Department located at 17575 Peak Avenue.



Preliminary Intent
Three Way Stop Sign Controlled Intersection

STREET SECTION - DIANA AVENUE
SCALE: NONE Looking East

STREET SECTION - LOTUS WAY
SCALE: NONE Looking South

TYPICAL STREET SECTION-DAKOTA DRIVE
SCALE: NONE (SEE PLAN VIEW FOR SIDEWALK LAYOUT)
★ WIDTH OF P.S.E. BETWEEN JULIANN WAY AND THE KNUCKLE IS 15 FEET

TYPICAL STREET SECTION-LOTUS COURT, JULIANN WAY AND DAKOTA DRIVE
SCALE: NONE

applicant:

Mana Hanalei, LLC
5927 BALFOUR CT., SUITE 208
CARLSBAD, CA 92008
(619) 876 6132

engineer:

MH ENGINEERING
16075 VINEYARD BLVD.
MORGAN HILL, CA 95037
(408) 779-7381

legend:

(E) EXISTING
(B) TREES TO BE REMOVED

grading quantities:

Cut	5,560 C.Y.
Fill	5,149 C.Y.
Net Cut	411 C.Y.

Source: MH Engineering Co., (2019)

6a. Seismic Hazards and Landslides

Fault Rupture. The project site is not located within an Alquist-Priolo Earthquake Fault Zone[13] and based on mapping of geologic hazards by Santa Clara County, the proposed project site is not located within any Fault Rupture Hazard Zones.[14] Therefore, impacts related to the potential for fault rupture would be less than significant.

Ground Shaking. Ground shaking is the cause of most damage during earthquakes and an earthquake of moderate to high magnitude generated within the San Francisco Bay Region could cause considerable ground shaking at the site, similar to that which has occurred in the past. The geotechnical report indicates that the nearest active faults to the site are the Calaveras Fault, located approximately 3.3 miles northeast of the site, and the San Andreas Fault, located approximately 8 miles southwest of the site.

The Association of Bay Area Governments has estimated the degree of ground shaking that could occur in the San Francisco Bay area on a regional basis and estimates that the project area would experience very strong ground shaking in the event of an earthquake on one of the regional faults.[15] To resist seismic forces, the proposed residences would need to be constructed using the appropriate seismic design criteria specified in the California Building Code (CBC), as stated in the geotechnical report for the project. The criteria are determined on the basis of soil type, the magnitude of the controlling seismic event, slip rate of the nearest fault, and distance to the nearest active fault. The structural design for the proposed homes would be based on Chapter 16 of the 2016 CBC and the seismic design parameters, determined as part of the geotechnical investigation, are listed in **Table 1**.

TABLE 1

CBC SITE CATEGORIZATION AND SITE COEFFICIENTS

Classification/Coefficient	Design Value
Site Class	D
Mapped MCE Spectral Acceleration at Short Period of 0.2 second – S_s	1.636g
Mapped MCE Spectral Acceleration at Period 1.0 second – S_1	0.606g
Adjusted MCE, 5% Damped Spectral Response Acceleration at Short Period of 0.2 second – S_{MS}	1.636g
Adjusted MCE, 5% Damped Spectral Response Acceleration at Period of 1.0 second – S_{M1}	0.910g
Design 5% Damped Spectral Response Acceleration at Short Period of 0.2 second for Occupancy Category I/II/III – S_{DS}	1.091g
Design 5% Damped Spectral Response Acceleration at Period of 1.0 second for Occupancy Category I/II/III – S_{D1}	0.606g

SOURCE: Quantum Geotechnical, Inc., 2019.

Seismic design provisions of current building codes generally prescribe minimum lateral forces, applied statically to the structure, combined with the gravity forces of dead and live loads. Therefore, structures designed in accordance with the CBC should be able to: (1) resist minor earthquakes without damage, (2) resist moderate earthquakes without structural damage but with some nonstructural damage, and (3) resist

[13] California Geological Survey, *Earthquake Zones of Required Investigation, Morgan Hill Quadrangle,* Revised Official Map, January 1, 1982. Available online at http://gmw.conservation.ca.gov/SHP/EZRIM/Maps/MORGAN_HILL_EZRIM.pdf.

[14] Santa Clara County, *Santa Clara County Geologic Hazard Zones,* Map 53, October 26, 2012. Available online at https://www.sccgov.org/sites/dpd/DocsForms/Documents/GEO_GeohazardATLAS.pdf.

[15] Association of Bay Area Governments, *Earthquake and Hazards Program, Santa Clara County Earthquake Hazard, 2013.* Available online at http://quake.abag.ca.gov/earthquakes/santaclara/.

major earthquakes without collapse but with some structural as well as nonstructural damage. While conformance to the current building code recommendations does not constitute any kind of guarantee that significant structural damage would not occur in the event of a maximum magnitude earthquake, it is reasonable to expect that a well-designed and well-constructed structure would not collapse or cause loss of life in a major earthquake.

As part of its review, the City of Morgan Hill Building Department reviews the planned design to confirm compliance with the CBC. Compliance with the CBC is required, subject to approval as part of the building permit review process, and will ensure that impacts to buildings from a major earthquake and related ground shaking would be minimized and reduced to a less than significant level.

Liquefaction. Liquefaction is a phenomenon in which saturated cohesionless soils are subject to a temporary, but essentially total, loss of shear strength because of pore pressure build-up under the reversing cyclic shear stresses associated with earthquakes. The project site is not located within a Santa Clara County Liquefaction Hazard Zone[16] or within a State of California Seismic Hazard Zone for liquefaction potential.[17] In addition, the geotechnical report for the proposed project indicates that the potential for liquefaction is low. Therefore, impacts related to liquefaction hazards would be less than significant.

Landslides. The project site is not located within a Santa Clara County Landslide Hazard Zone[18] or within a State of California Seismic Hazard Zone for landslide potential.[19] Therefore, impacts related to landslides, including seismically induced landslides, would be less than significant.

6b. Erosion Hazards

Without proper soil stabilization controls, construction activities such as building demolition, excavation, backfilling, and grading can increase the potential for soil loss and erosion by wind and stormwater runoff through the removal of stabilizing vegetation and exposure of areas of loose soil. The potential for soil erosion exists during the construction period when the existing cover has been removed and before new vegetation or hardscape is installed. As a Standard Condition of Approval, the project applicant would be required to implement a sediment control plan (City of Morgan Hill Municipal Code Section 13.30.270). The proposed erosion control measures would include measures such as the use of fiber rolls or silt fences along the perimeter of all proposed private drives, installation of a sediment barrier at the site's principal storm drain inlet, provision of gravel bag check dams on the proposed public street, and hydroseeding of designated areas.

In addition, as discussed in Section 9, Hydrology and Water Quality, in accordance with Chapter 13.30 of the City of Morgan Hill Municipal Code (Urban Storm Water Quality Management and Discharge Control), the project applicant would be required to comply with the requirements of the General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities, Order No. 2009-0009-DWQ (Construction General Stormwater Permit) to control erosion during construction. In accordance with this permit, the project sponsor would be required to submit a Notice of Intent and implement a Storm Water Pollution Prevention Plan (SWPPP) in accordance with the Construction General Stormwater Permit. The SWPPP would specify the use of best management practices to restrict soil erosion and the project applicant would also implement erosion and sedimentation controls in accordance with Chapter 13.30 of the City of Morgan Hill Municipal Code.

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[16] Santa Clara County, *Santa Clara County Geologic Hazard Zones*, Map 53, October 26, 2012. Available online at http://www.sccgov.org/sites/planning/GIS/GeoHazardZones/Documents/GeohazardMapsATLAS2.pdf.

[17] California Geological Survey, 1982. *Earthquake Zones of Required Investigation, Morgan Hill Quadrangle*, Revised Official Map, January 1. Available online at http://gmw.conservation.ca.gov/SHP/EZRIM/Maps/MORGAN_HILL_EZRIM.pdf.

[18] Santa Clara County, *Santa Clara County Geologic Hazard Zones*, Map 53, October 26, 2012. Available online at http://www.sccgov.org/sites/planning/GIS/GeoHazardZones/Documents/GeohazardMapsATLAS2.pdf.

[19] California Geological Survey. *Earthquake Zones of Required Investigation, Morgan Hill Quadrangle*, Revised Official Map, January 1, 1982. Available online at http://gmw.conservation.ca.gov/SHP/EZRIM/Maps/MORGAN_HILL_EZRIM.pdf.

With implementation of the City's Standard Conditions of Approval to require an erosion control plan in addition to drainage improvements required as part of the SWPPP, potential erosion hazards during construction would be less than significant.

6c, 6d, 6e. Geologic Stability and Soil Engineering Constraints

Unstable Geologic Units or Soil. As indicated above, the project site is not located within a Santa Clara County Liquefaction Hazard or Landslide Hazard Zone, indicating that neither of these potential hazards would affect the project site. Further, the project would not include construction of basements or other subsurface structures that would involve substantial excavations that could become unstable. Therefore, this impact would be less than significant.

Expansive Soil. Soil borings indicate that the geologic materials beneath the site consist of silts, sands, and gravels in the top 5 to 14 feet, but the site is underlain by gravelly clays and clayey sands/gravels as shallow as 7 to 14 feet, indicating the potential for adverse effects from expansive soils. Expansive soil conditions could damage project improvements, which would represent a significant impact unless substantial damage is avoided by incorporating appropriate engineering into the grading and foundation design of proposed buildings and improvements. As a Standard Condition of Approval, the applicant is required to prepare a geotechnical engineering report, which includes soil classifications and foundation design recommendations in conformance with UBC Chapter 29 (UBC Appendix Chapter 33). The Quantum geotechnical investigation was completed in response to this requirement and Quantum recommends use of post-tensioned slab-on-grade foundations to minimize the adverse effects of expansive soils. Therefore, this impact would be less than significant with implementation of this Standard Condition of Approval.

Soils Incapable of Supporting Septic Tanks or Alternative Wastewater Disposal Systems. The project site is located within the Morgan Hill city limits and the area (including the home located on the project site) is served by the community's sewer system. No septic tanks or alternative wastewater disposal systems would be required for the project. Therefore, there would be no impact related to having soils incapable of supporting the use of septic tanks or alternative waste disposal systems.

Issues (and Supporting Information Sources)	Potentially Significant Impact	Less than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
7. Greenhouse Gases - Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment, based on any applicable threshold of significance?			X	
b) Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?			X	

"Greenhouse gases" (so called because of their role in trapping heat near the surface of the earth) emitted by human activity are implicated in global climate change, commonly referred to as "global warming." These greenhouse gases contribute to an increase in the temperature of the earth's atmosphere by transparency to short wavelength visible sunlight, but near opacity to outgoing terrestrial long wavelength heat radiation. The principal greenhouse gases (GHGs) are carbon dioxide, methane, nitrous oxide, ozone, and water vapor. Fossil fuel consumption in the transportation sector (on-road motor vehicles, off-highway mobile sources, and aircraft) is the single largest source of GHG emissions, accounting for approximately half of GHG emissions globally. Industrial and commercial sources are the second largest contributors of GHG emissions--with about one-fourth of total emissions.

Significance Thresholds and Criteria. Exercising its own discretion as lead agency and similar to multiple other San Francisco Bay Area jurisdictions, the City staff has decided to rely on the thresholds recommended by the BAAQMD in its 2017 CEQA Guidelines.[20] City staff believes that these recommendations still represent the best available science on the subject of what constitutes significant GHG effects on climate change and they are as follows:

- Compliance with a Qualified Climate Action Plan or
- Meet one of the following thresholds:
  - 1,100 metric tons (MT) of CO_2-equivalents (CO_2e) per year; or
  - 6.7 MT CO_2e per capita per year (residential) / 4.6 MT CO_2e per service population per year (mixed use)

For purposes of this report, project compliance with the 1,100 MT CO_2e/year threshold is used as the primary basis to determine significance.

7a. Greenhouse Gas (GHG) Emissions

Short-term GHG emissions would be generated by project-related construction activities. In addition, project implementation would also contribute to long-term increases in greenhouse gases (GHGs) from direct sources (traffic increases and minor secondary fuel combustion emissions from space heating). Development occurring as a result of the proposed project would also result in other indirect operational increases in GHG emissions as a result of electricity generation to meet project-related increases in energy demand. Electricity generation in California is mainly from natural gas-fired power plants. However, since California imports about 20 to 25 percent of its total electricity (mainly from the northwestern and southwestern states), GHG emissions associated with electricity generation could also occur outside of California. Space or water heating, water delivery, wastewater processing and solid waste disposal also generate GHG emissions.

Operational GHG emissions associated with the proposed project would be less than significant because the size of the project (24 new single-family units) would not exceed the BAAQMD's screening criteria for potential significance of operational GHG emissions. These screening criteria provide a conservative indication of whether the proposed project could exceed the above significance thresholds. The BAAQMD's screening level size for single-family residences is 56 units for operational GHG emissions. At or above this size, a project would have the potential to exceed the BAAQMD's operational GHG significance threshold of 1,100 MT of CO_2e per year.

Although the BAAQMD does not have significance thresholds or screening criteria for construction-related GHG emissions, the project's construction-related GHG emissions are considered to be less than significant. Construction-related GHG emissions were estimated in 2014 for the 52-unit Diana-Bagoye (Estancia) project, which is located 225 west of the project site.[21] The analysis determined that the construction-related GHG emissions associated with that project (423 MT of CO_2e per year) were well below the above operational GHG threshold of 1,100 metric tons (MT) of CO_2e per year and this would be an indication that the proposed project, which is less than half the size of the Estancia project, would

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[20] Bay Area Air Quality Management District, *California Environmental Quality Act, Air Quality Guidelines*, May, 2017. Available online at: http://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en.

[21] City of Morgan Hill, *Initial Study: Diana Avenue – Bagoye, Morgan Hill, CA*, May 2014. Available for public review at the City's Community Development Department located at 17575 Peak Avenue. The GHG analysis for that project estimated construction-related GHG emissions at 423 MT of A risk and hazard analysis was completed in 2014 for the 52-unit Diana-Bagoye (Estancia) project, which is located 225 west of the project site. The analysis determined that the construction-related GHG emissions associated with that project was less than significant because it would generate 423 MT of CO_2e (below the BAAQMD-recommended significance threshold of greater than 1,100 MT of CO_2e per year), the non-cancer chronic hazard index to be 0.015 (below the BAAQMD-recommended threshold hazard index of greater than 1.0), and the annual average ambient $PM_{2.5}$ level to be 0.0737 $\mu g/m^3$ (below the BAAQMD-recommended threshold level of 0.3 $\mu g/m^3$).

also have construction-related GHG emissions that would be less than significant. The proposed project would also be subject to the existing CARB regulation (Title 13 of the California Code of Regulations, Section 2485), which limits idling of diesel-fueled commercial motor vehicles, and compliance with this regulation would further reduce GHG emissions associated with project construction vehicles (compliance with idling limits is required under Mitigation Measure AQ-1 in Section 3, Air Quality). The BAAQMD also encourages implementation of construction-related GHG reduction strategies where feasible, such as: using alternative-fueled (e.g., biodiesel, electric) construction vehicles/equipment such that these vehicles/equipment comprise at least 15 percent of the fleet; using local building materials such that these materials comprise at least 10 percent of all construction materials; recycling or reusing at least 50 percent of construction waste or demolition materials (2016 Green Building Code Section 4.408.1 currently requires recycling and/or salvage of 65 percent of nonhazardous construction and demolition waste). None of these measures is specifically proposed as part of the project.

7b. Greenhouse Gas Reduction Plans, Policies, and Regulations

California has passed a number of bills related to GHG emissions and the Governor has signed at least ,three executive orders regarding greenhouse gases. The Governor's Office of Planning and Research has not yet established CEQA significance thresholds for GHG emissions. GHG statutes and executive orders (EO) include EO S-1-07, EO S-3-05, EO S-13-08, EO S-14-08, EO S-20-04, EO S-21-09, AB 32, AB 341, AB 1493, AB 3018, SB 97, SB375, SB 1078 and 107, SB 1368, and SB X12. AB 32 establishes regulatory, reporting, and market mechanisms to reduced statewide GHG emissions to 1990 levels by 2020. Pursuant to this requirement, CARB adopted its Scoping Plan, which contains the main strategies to achieve required reductions by 2020. In addition, effective January 1, 2020, the California Building Code/Green Building Code was recently amended to require all new homes in California to include solar panels. As indicated above, the project's construction-related and operational GHG emissions would not exceed this report's significance threshold of 1,100 MT. This threshold is based on the BAAQMD's 2017 CEQA Air Quality Guidelines, which in turn, relates to AB 32 GHG reduction goals. Therefore, the project's GHG emissions would not conflict with local and state plans and policies adopted for the purpose of reducing GHG emissions, a less-than-significant impact. However, the proposed project does not currently include provision of solar panels on project homes and it is possible that the project could be implemented just before the January 1, 2020 effective date of the Green Building Code requirement to include solar panels on all new homes. The Building Department would implement this requirement during the building permit process, if required.

In an effort to reduce the City's GHG emissions, the City of Morgan Hill participated in a Countywide Climate Action Plan process that included the County of Santa Clara and seven jurisdictions within the county. Policies and actions denoted with the green leaf symbol in the Morgan Hill 2035 General Plan comprise the City's plan to reduce GHG emissions. General Plan policies with this symbol that are pertinent to the proposed project relate to promoting bicycle and pedestrian use and access (goals and policies TR-8 and TR-9), reducing dependence on automobiles (TR-10 and NRE-10), encouraging use of non-potable water for landscape irrigation (NRE-7), reducing GHG emissions in the City consistent with statewide efforts (NRE-15), and promoting energy efficiency and renewable energy-generating features like solar panels and solar hot water heaters (NRE-16). Regarding promoting alternative transportation modes and reducing dependence on the automobile (TR-8, TR-9, TR-10, NRE-10), the project's proximity to several proposed bike lanes/routes would encourage bicycle access to the Caltrain station (about one mile to the west) and commercial uses on East Dunne Avenue (about 0.5 miles to the south). A more detailed discussion of bike lanes in the project vicinity is provided below in Section 16f (Transportation/Traffic). Encouraging use of non-potable water in the proposed development is not feasible because non-potable or recycled water is not available in the project vicinity (NRE-7). Regarding reducing GHG emissions (NRE-15, NRE-16), the project's GHG emissions were determined to be less than significant (see Section 7a above) and implementation of the Green Building Code requirements and Title 24 energy efficiency standards would further reduce the project's operational GHG emissions. Mandatory implementation of the 2016 Green Building Code's requirement that 65 percent of the project's construction and demolition waste materials be recycled or reused (i.e., diverted from landfills)

would also reduce the project's construction-related GHG emissions (see Section 18g, Utilities and Service Systems, below for more detailed discussion).

Issues (and Supporting Information Sources)	Potentially Significant Impact	Less than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
8. Hazards and Hazardous Materials - Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?		X		
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?		X		
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?				X
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?				X
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?				X
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?				X
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?			X	
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?				X

8a. Routine Transport, Use, or Disposal of Hazardous Materials

Development of a new residential use at the project site would result in an increase in the generation of household hazardous wastes that are typical of any residential area. Common household hazardous wastes such as paint, pesticides, used oil and antifreeze, could result in direct or indirect effects on human health and the environment if not appropriately handled and disposed of. In addition to water quality impacts from stormwater runoff, other potential impacts such as direct human contact with hazardous materials could result from improper use or disposal of hazardous household chemicals.

Although Morgan Hill residents can legally dispose of household hazardous wastes under the County of Santa Clara Household Hazardous Waste program, the project's impacts related to the generation and disposal of hazardous waste would be potentially significant because not all residents are knowledgeable in the identification of hazardous wastes and appropriate disposal requirements. This impact would be reduced to less than significant with implementation of Mitigation Measure HAZ-1, Buyer Education

Program for Household Hazardous Waste, which requires implementation of a buyer education program to educate residents about the identification of household hazardous wastes, environmental hazards associated with mishandling of the wastes, appropriate disposal methods, and how to make an appointment for disposal. Impacts related to the routine transport of household hazardous materials would be less than significant because the materials are commercially packaged for retail sale, and transport of these materials is well regulated by state and federal regulations.

8b, 8d. Release of or Exposure to Hazardous Materials

A Phase I Environmental Site Assessment (ESA) was completed for the project site by Tetra Tech, Inc. on February 6, 2019.[22] The following impact discussion summarizes the findings of the ESA regarding past site uses of hazardous materials the existence of naturally-occurring asbestos. The ESA included a site reconnaissance and an interview with the property owner as well as review of regulatory databases, local agency files specific to the site, and historical documentation (including aerial photographs, topographic maps, and City Directories).[23]

Site History and Description. The project site is comprised of two parcels. There are two homes and various outbuildings located on the property. Normal household chemicals were observed within the largest shed on the property, including cleaning supplies and various vehicle maintenance fluids. In addition, two 5-gallon buckets of hydraulic oil, three cans of paint, a 20-pound propane tank, and trailer-mounted air compressor were stored within three of the sheds on the property. Two bobcats, one of which was stored on a trailer, were also observed. A soil stockpile, gravel stockpile, and scattered debris including metal, vegetation and yard waste, plastic sheeting, plastic piping, appliances, concrete, and household trash were also observed throughout the property. Prior to demolition of the existing buildings at the project site, the project applicant would be required to implement disposal procedures of identified household chemicals and other demolition materials in compliance with applicable County and State regulations, and a Construction Waste Management Plan as required by the Morgan Hill Building Department.

Based on the historical use of the surrounding areas as agricultural land, it is possible that environmentally persistent pesticides were applied to crops grown on or around the project site. However, the normal use and application of agricultural chemicals generally do not trigger enforcement actions, assessments by regulatory agencies, or the recommendation for further assessment of the target property, unless there is evidence indicating misuse, dumping, or improper storage of chemicals has occurred. There are no indications of these types of activities, or evidence of agricultural chemical mixing, large quantity storage, or materials processing on the project site.

The ESA identified over 11 Recognized Environmental Conditions (RECs) within two miles of the project site, but concluded that they would not likely affect soil or groundwater quality at the project site and no further assessment was recommended at this time.

Hazardous Building Materials. Based on their age, the structures on the project site could include hazardous building materials such as asbestos-containing materials and lead-based paint. In addition, fluorescent light tubes containing mercury vapors, fluorescent light ballasts containing polychlorinated biphenyls (PCBs) or bis(2-ethylhexyl) phthalate (DEHP), and PCB containing electrical equipment may

[22] Tetra Tech, Inc., *Phase I Environmental Site Assessment of Findings, Montecito Estates, Diana Avenue and Lotus Way, Morgan Hill, California,* February 6, 2019. Available for public review at the City's Community Development Department located at 17575 Peak Avenue.

[23] Sanborn Fire Insurance Maps are standard historical sources also typically reviewed for Phase I Environmental Site Assessments. However, according to Tetra Tech, Inc. (2019), there is no Sanborn Map coverage for the proposed project site.

be present in any of the buildings that are proposed to be demolished, including the residences and associated outbuildings.

If friable or non-friable asbestos is present, there is a potential for release of airborne asbestos fibers when the asbestos-containing materials are disturbed, unless proper asbestos abatement precautions are taken. Such a release could expose the construction workers and adjacent residents and occupants to airborne asbestos fibers. However, the demolition would follow Bay Area Air Quality Management District (BAAQMD) and California Department of Industrial Relations (Cal/OSHA) regulations regarding abatement of asbestos-containing materials, including BAAQMD Regulation 11, Rule 2, Asbestos Demolition, Renovation and Manufacturing and Title 8 of the California Code of Regulations, Section 1529 and Sections 341.6 through 341.14. A building permit would not be issued by the City of Morgan Hill until the project applicant demonstrates compliance with these asbestos abatement regulatory requirements. In accordance with these regulatory requirements, the BAAQMD (and as required by existing federal and State law) would require specific testing for confirmation of any asbestos-containing materials, abatement of identified asbestos-containing materials, and proper handling of any identified materials prior to and during demolition. Implementation of these measures would avoid/minimize worker exposure during demolition and would also require proper disposal of asbestos-containing materials removed during abatement.

Similarly, if lead-based paint is present and has delaminated or chipped from the surfaces of the building materials, there is a potential for the release of airborne lead particles, unless proper lead abatement procedures are followed. To address lead-based paint, the demolition will be required to comply with the Cal/OSHA Lead in Construction Standard (8 CCR Section 1532.1) to ensure that workers and the surrounding population are not exposed to unsafe levels of lead, and that a release of lead-based paint would not adversely affect the environment.

If PCBs are present in the buildings to be demolished, leakage could expose workers to unacceptable levels of PCBs (greater than 5 parts per million, based on Title 22, *California Code of Regulations*). Removal of fluorescent light tubes and fixtures could result in exposure to mercury vapors if the lights are broken or exposure to DEHP[24] (if present in the light ballasts).

Potential exposure to these hazardous building materials during building demolition would be potentially significant, but mitigated to a less-than-significant level with implementation of Mitigation Measure HAZ-2, Hazardous Building Materials Surveys and Abatement, which requires the project applicant to conduct surveys for hazardous building materials prior to demolition, and if warranted, to implement appropriate abatement and disposal procedures in compliance with applicable regulations.

Naturally-Occurring Asbestos. Naturally-occurring asbestos can be released from serpentinite and ultramafic rocks when the rock is broken or crushed. At the point of release, the asbestos fibers may become airborne, causing air quality and human health hazards. Serpentinite and/or ultramafic rock are known to be present in 44 of California's 58 counties. However, the project site is not located in an area where naturally-occurring asbestos is likely to be present[25] and therefore, there would be no impact associated with exposure to naturally-occurring asbestos.

8c. Hazardous Emissions or Use of Acutely Hazardous Materials

Hazardous emissions are toxic air contaminants (TACs) identified by the CARB and the BAAQMD. Extremely hazardous materials are defined by the State of California in Section 25532 (2)(g) of the Health and Safety Code. During project construction, only common hazardous materials such as paints, solvents,

[24] DEHP (Bis(2-ethylhexyl) phthalate) is the most common member of the class of phthalates that are used as plasticizers.

[25] Department of Conservation Division of Mines and Geology, *A General Location Guide for Ultramafic Rocks in California – Areas More Likely to Contain Naturally Occurring Asbestos Report,* August, 2000. Available online at ftp://ftp.consrv.ca.gov/pub/dmg/pubs/ofr/ofr_2000-019.pdf

cements, adhesives, and petroleum products (such as asphalt, oil, and fuel) would be used, none of which are considered extremely hazardous materials. As discussed in Section 3, Air Quality, the only toxic air contaminant that would be emitted during construction is diesel particulate matter (DPM). The closest schools are El Toro Elementary School, which is located approximately 0.3 miles northwest of the site, and Morgan Hill Kinder Care, which is located approximately 0.3 miles south of the site. Therefore, there is no impact associated with hazardous emissions within one-quarter (0.25) mile of a school during project construction. Further, as discussed in Section 3d, Exposure of Sensitive Receptors, operation of project-related diesel construction equipment would result in less-than-significant cancer and non-cancer risks on nearby sensitive receptors (including infants and children).

There would be no use of extremely hazardous materials or emissions of TACs once the project residences are constructed and occupied. Therefore, there is no impact associated with hazardous emissions within one-quarter mile of a school once the project is constructed.

8e, 8f. Airports/Airstrips

The nearest airport to the proposed project is the San Martin Airport, located approximately 4 miles to the southeast of the site. Therefore, there is no impact associated with safety hazards due to location of the project within 2 miles of a public airport or in the vicinity of a private airstrip.

8g. Emergency Plans

The project would not impair or physically interfere with an adopted emergency response or emergency evacuation plan. The project will be required to comply with Fire Department Standard Details and Specifications to ensure adequate emergency access to project buildings by fire engines. Therefore, the project's impact on emergency response would be less than significant.

8h. Wildland Fire Hazards

The proposed project site is not located in a fire hazard severity zone within a local responsibility area[26] or state responsibility area.[27] Therefore, there is no impact related to risks associated with wildland fires.

Mitigation Measures – Hazards and Hazardous Materials (HAZ)

The following measures would be required to reduce the project's potential release of or public exposure to hazardous materials to a less-than-significant level:

HAZ-1: Implement Buyer Education Program for Household Hazardous Waste: *The project sponsor, working with the City of Morgan Hill and County of Santa Clara Household Hazardous Waste program, shall implement a Buyer Education Program for Household Hazardous Waste, providing materials and/or direction to sources of information, (e.g. https://www.morgan-hill.ca.gov/432/Household-Hazardous-Waste) to educate project buyers about the identification of household hazardous wastes, environmental hazards associated with mishandling of the wastes, appropriate disposal methods, and how to make an appointment for disposal.*

HAZ-2: Hazardous Building Materials Surveys and Abatement. *Prior to demolition of the existing buildings at the project site, the project applicant shall require that the contractor(s) have a hazardous building materials survey completed by a Registered Environmental Assessor or a registered engineer. This survey shall be completed prior to any demolition activities associated with the project. If any friable asbestos-containing materials or lead-containing materials are identified, adequate abatement practices, such as containment and/or removal,*

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[26] California Department of Forestry and Fire Protection, *Santa Clara County Draft Fire Hazard Severity Zones in LRA*, October 4, 2007. Available online at http://www.fire.ca.gov/fire_prevention/fhsz_maps_santaclara.php.

[27] California Department of Forestry and Fire Protection, *Santa Clara County Fire Hazard Severity Zones in SRA*, Adopted by CAL FIRE on November 7, 2007. Available online at http://www.fire.ca.gov/fire_prevention/fhsz_maps_santaclara.php.

shall be implemented in accordance with applicable laws prior to demolition. Specifically, asbestos abatement shall be conducted in accordance with Section 19827.5 of the California Health and Safety Code, as implemented by the Bay Area Air Quality Management District, as well as 8 CCR Section 1529 and Sections 341.6 through 341.14, as implemented by Cal/OSHA. Lead-based paint abatement shall be conducted in accordance with Cal/OSHA's Lead in Construction Standard.

Any PCB-containing equipment, fluorescent light tubes containing mercury vapors, and fluorescent light ballasts containing DEHP shall also be removed and legally disposed of in accordance with applicable laws including 22 CCR Section 66261.24 for PCBs, 22 CCR Section 66273.8 for fluorescent lamp tubes, and 22 CCR Division 4.5, Chapter 11 for DEHP.

Issues (and Supporting Information Sources)	Potentially Significant Impact	Less than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
9. Hydrology and Water Quality - Would the project:				
a) Violate any water quality standards or waste discharge requirements?			X	
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?			X	
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?			X	
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner, which would result in flooding on- or off-site?			X	
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?			X	
f) Otherwise substantially degrade water quality?		X		
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?				X
h) Place within a 100-year flood hazard area structures, which would impede or redirect flood flows?				X
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?				X
j) Inundation by seiche, tsunami, or mudflow?				X

The 4.84-acre project site is very level, with elevations from approximately 367 to 360 feet above mean sea level. Under current conditions, rainfall percolates into soils on most of the site and contributes to groundwater recharge. Intense storm runoff drains from the project site and enters the municipal storm drain system in Diana Avenue. Runoff from the storm drain system is conveyed through the Madrone/Cochrane Channels (approximately one-half mile to the southwest), which in turn discharges to Coyote Creek, more than 2 miles to the northwest.[28] The Madrone/Cochrane Channels are engineered channels while Coyote Creek is in its natural bed at the point of discharge. Coyote Creek is listed by the State Water Resources Control Board as an impaired water body for diazinon and trash.[29] The beneficial uses of Coyote Creek include groundwater recharge, commercial and sport fishing, cold freshwater habitat, fish migration, preservation of rare and endangered species, fish spawning, warm freshwater habitat, wildlife habitat, and contact and non-contract water recreation.[30]

A Preliminary Drainage Analysis and Storm Water Management Plan (**Figure 9**) was prepared for the proposed project by MH Engineering in December 2017 to address increased storm drainage that would result from the proposed residential development. The management plan specifies measures to control runoff flows and quality consistent with the requirements of the City and the Central Coast Regional Water Quality Control Board for storm flows generated during and post-construction.

9a, 9f. Water Quality

Construction. The proposed project includes removal of the existing residences and ancillary structures at the site and construction of 24 new homes along with associated storm drainage improvements and other infrastructure. Excavation, filling, and other earth moving activities would be conducted over the entire 4.84-acre site. Without proper precautions, this excavation and associated stockpiling of soil and placement of imported fills could induce erosion, and related sedimentation, resulting in degradation of water quality in the existing storm drain system. Construction activities would also require the use of hazardous materials that could degrade water quality without proper controls.

In accordance with Chapter 13.30 of the City of Morgan Hill Municipal Code (Urban Storm Water Quality Management and Discharge Control), the project applicant would be required to comply with the requirements of the General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities, Order No. 2009-0009-DWQ (Construction General Stormwater Permit) to control erosion during construction. The Construction General Stormwater Permit applies to projects that disturb one or more acres of soil, or disturb less than one acre but are part of a larger common plan of development that disturbs one or more acres. Construction activity subject to this permit includes clearing, grading and disturbances to the ground such as stockpiling, or excavation, but does not include regular maintenance activities performed to restore the original line, grade, or capacity of the facility. In accordance with this permit, the project sponsor would be required to submit a Notice of Intent and implement a Storm Water Pollution Prevention Plan (SWPPP).

The SWPPP prepared in accordance with this permit would include at least the minimum BMPs related to housekeeping (storage of construction materials (including hazardous materials), waste management, vehicle storage and maintenance, landscape materials, pollutant control), non-stormwater management, erosion control, sediment control, and run-on and run-off control. Additional BMPs would be specified as needed to protect water quality from construction-related stormwater and non-stormwater discharges. As part of the SWPPP, the project applicant would implement a construction site monitoring program to demonstrate compliance with the discharge prohibitions of the General Permit, demonstrate whether

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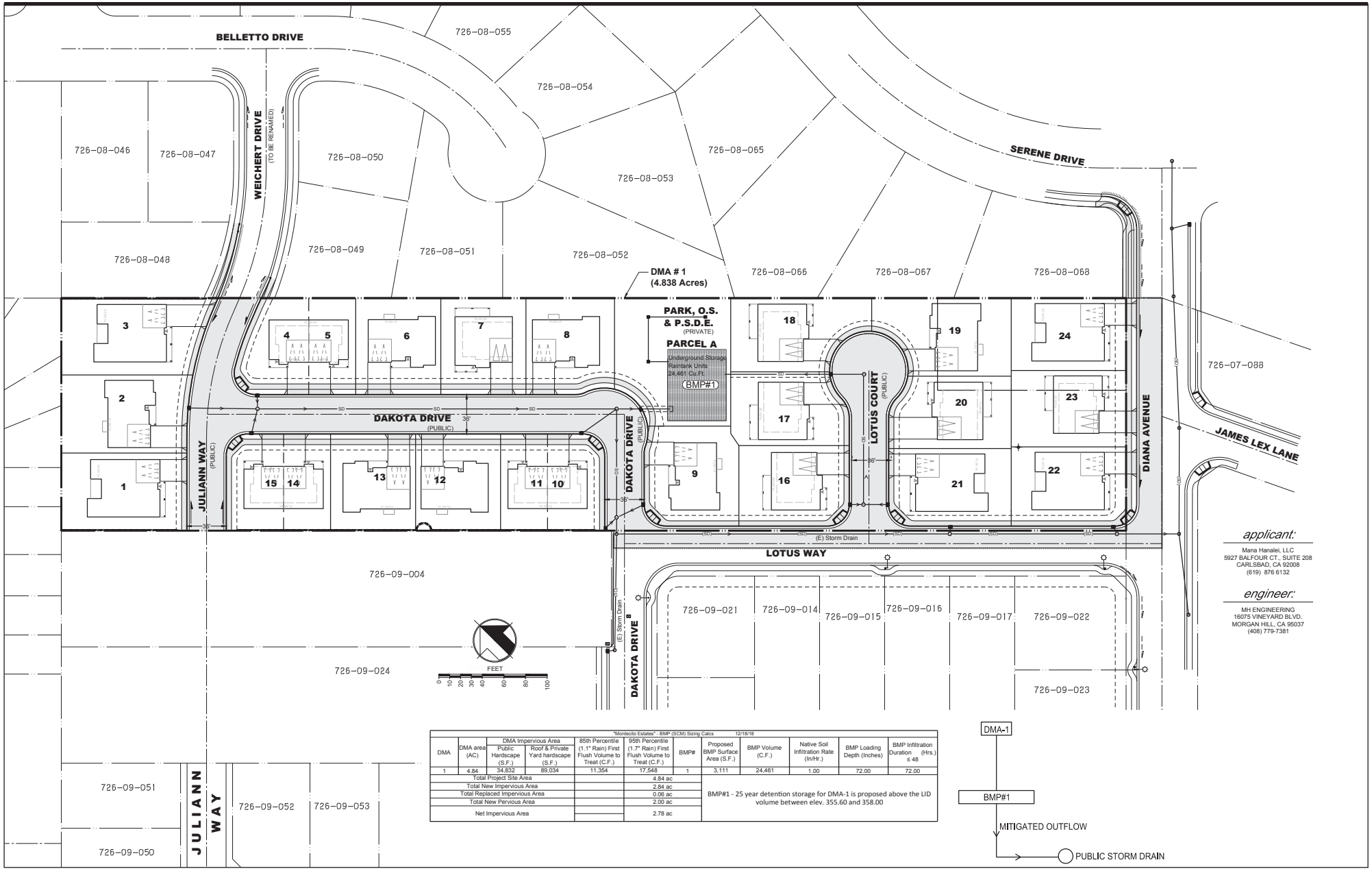
[28] Sowers, Janet M. and Henkle, Jameson E., *Creek and Watershed Map of Morgan Hill & Gilroy*, 2009.

[29] State Water Resources Control Board, *California 2010 303(d) List of Water Quality Limited Segments,* 2011. Available online http://www.waterboards.ca.gov/water_issues/programs/tmdl/integrated2010.shtml.

[30] San Francisco Bay Regional Water Quality Control Board (RWQCB), *San Francisco Bay Basin (Region 2) Water Quality Control Plan* (Basin Plan). 2011. Available online at www.swrcb.ca.gov/rwqcb2/water_issues/programs/planningtmdls/basinplan/web/docs/BP_all_chapters.pdf, December 31, 2011.



"Montecito Estates" - BMP (SCM) Sizing Calcs 12/18/18

DMA	DMA area (AC)	DMA Impervious Area: Public Hardscape (S.F.)	DMA Impervious Area: Roof & Private Yard hardscape (S.F.)	85th Percentile (1.1" Rain) First Flush Volume to Treat (C.F.)	95th Percentile (1.7" Rain) First Flush Volume to Treat (C.F.)	BMP#	Proposed BMP Surface Area (S.F.)	BMP Volume (C.F.)	Native Soil Infiltration Rate (in/Hr.)	BMP Loading Depth (Inches)	BMP Infiltration Duration (Hrs.) ≤ 48
1	4.84	34,832	89,034	11,354	17,548	1	3,111	24,461	1.00	72.00	72.00

Total Project Site Area		4.84 ac
Total New Impervious Area		2.84 ac
Total Replaced Impervious Area		0.06 ac
Total New Pervious Area		2.00 ac
Net Impervious Area		2.78 ac

BMP#1 - 25 year detention storage for DMA-1 is proposed above the LID volume between elev. 355.60 and 358.00

applicant:

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Source: MH Engineering Co., (2019)

non-visible pollutants are present and could contribute to an exceedance of water quality objectives, identify the need for correction actions, additional BMPs, or SWPPP revisions, and evaluate the effectiveness of the existing BMPs. The SWPPP must also be submitted to the City of Morgan Hill Engineering Division for review and approval. Chapter 13.30 of the City of Morgan Hill Municipal Code specifies requirements for implementation of erosion and sedimentation controls. With implementation of the requirements of the Construction General Stormwater Permit and specific erosion and sedimentation requirements of Chapter 13.30 of the City of Morgan Hill Municipal Code, water quality impacts related to erosion and a release of hazardous materials during construction would be less than significant.

Post-Construction. Most of the 4.84-acre project site is undeveloped and with stormwater infiltrating to the groundwater through the soil. Under the proposed project, the total building coverage for all 24 homes would be 89,034 square feet, and an additional 34,832 square feet of impervious surfaces would be created by the construction of driveways, sidewalks, and streets. The total new impervious surfaces would comprise 123,866 square feet (2.84 acres), or approximately 59 percent of the post-development project site. The 2.84 acres of proposed impervious surfaces would include 0.06 acres of replacement impervious surface area proposed for demolition; therefore, net new impervious surface area would total 2.78 acres. The increase in impervious surfaces could decrease the amount of stormwater infiltration and increase flows to the storm sewer system, potentially increasing the discharge of stormwater pollutants to the storm sewer (and ultimately Coyote Creek) and the potential for erosion in Coyote Creek where the stormwater is discharged.

However, post-construction stormwater runoff from the proposed project would be managed in accordance with Resolution R3-2013-0032 issued by the California Regional Water Quality Control Board, Central Coast Region.[31] This resolution formally adopts post-construction stormwater management requirements for development projects in the Central Coast Region. The requirements identify 10 Watershed Management Zones (WMZs) in the covered area, and specify stormwater management requirements for each zone, depending on the size of the development project. Because the proposed project site is located in an area classified as WMZ-1, and would involve the creation of 2.78 acre of net new impervious surfaces, stormwater management at the project site must include site design and runoff features to limit the amount of runoff from the project site as well as on-site water quality treatment to reduce pollutant loads in the stormwater runoff using a Low Impact Development (LID) treatment system such as biofiltration. In WMZ-1, the treatment system must retain 95 percent of the runoff from the project site and also maintain peak runoff flows such that they do not exceed pre-project flows.

As described in the Project Description, the project applicant would construct a centralized bioretention system to treat at a minimum 95 percent of the runoff from the project site. The design, construction, operation, and maintenance of the system would be addressed in a Stormwater Control Plan submitted to the City of Morgan Hill in accordance with the stormwater management requirements adopted by Resolution R3-2013-0032. This plan would demonstrate how the bioretention facility would meet the specified water quality, runoff retention, and peak flow management requirements. Stormwater quality control measures would include a series of catch basins and network of storm drain pipes along with underground storage tanks, bio swales, and landscaped area that will treat the water via infiltration and detain post development runoff to less than pre development level prior to discharge into the storm drain system.

Prior to occupancy of the project, the stormwater controls would be field verified by the City of Morgan Hill to confirm design of the controls in accordance with the specified standards, and the controls would be subject to later operation and maintenance inspections by the City.

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[31] Resolution No. R3-2013-0032 is available online at http://www.waterboards.ca.gov/centralcoast/water_issues/programs/stormwater/docs/lid/lid_hydromod_charette_index.shtml

With implementation of the requirements adopted by Resolution R3-2013-0032, water quality impacts related to violation of water quality standards or waste discharge requirements would be less than significant once the project is constructed.

Existing Well. The Phase I Environmental Site Assessment for the project indicates that there is no evidence of a water well observed on the project site. However, an interview with the current owners of the site indicated that there is a well on the site, but the location is unknown. If a well is situated on the property and is not properly abandoned prior to construction, damage to the well could provide a downward conduit for groundwater contamination during construction and once the residences are constructed. The damaged well could also provide a conduit for cross contamination between aquifers. This is a potentially significant water quality impact. Mitigation Measure HYD-1 requires a survey of the site in order to determine the presence of the reported water well and the abandoning of the well in accordance with applicable well abandonment regulations and would reduce this impact to a less-than-significant level.

9b. Groundwater Resources

The proposed project is located in the Llagas Subbasin of the Gilroy-Hollister Groundwater Basin which has an area of 87 square miles and is used by the City of Morgan Hill as a water supply.[32,33] However, the project would not result in depletion of groundwater supplies in this sub-basin because the project does not propose to install wells or otherwise use groundwater beyond what is supplied by the City. Further, in accordance with current building standards, development of residential uses on the site would include the use of water-conserving fixtures that would help minimize water use by future residents.

The project includes the construction of 2.78 net acres of new impervious surfaces that could reduce the infiltration of stormwater at the site, resulting in an associated decrease in groundwater recharge in the project area. However, the new impervious surfaces represent approximately 0.1 percent of the total area of the groundwater subbasin. Further, as discussed in 9a, the project applicant would construct a bioretention facility to infiltrate 95 percent of the stormwater runoff from the project site in accordance with the stormwater management requirements adopted by Resolution R3-2013-0032. With construction of the proposed stormwater controls, the amount of stormwater recharged to the groundwater would be similar to existing conditions and any reduction in groundwater recharge would be minute.

Based on the above analysis, impacts related to depletion of groundwater resources and interference with groundwater recharge would be less than significant.

9c, 9d, 9e. Drainage

The project site does not include any existing streams or water course that could be altered or diverted and there are no surface impoundments, wetlands, natural catch basins, settling ponds, or lagoons on the site. Therefore, there would be no impact related to alteration of drainage patterns by altering the course of a stream in a manner that would cause erosion or flooding on or off-site.

The project includes the construction of 2.78 net acres of new impervious surfaces which could potentially concentrate stormwater runoff flows and result in on- or off-site erosion or flooding, increase flows to the storm drainage system, and increase the discharge of stormwater pollutants to storm drains. However, as discussed in 9a, the project applicant would construct a bioretention facility that would treat and retain 95 percent of the runoff from the project site and also maintain peak runoff flows such that they do not exceed pre-project flows in accordance with the stormwater management requirements adopted by Resolution R3-2013-0032. The project proposes to install a 15,836-cubic feet underground storage tank

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[32] City of Morgan Hill, *Morgan Hill 2035, Existing Conditions White Papers, Environmental Resources and Hazards. Public Review Draft*, May 16, 2013. Available at http://morganhill2035.org/wp-content/uploads/2013/06/4_EnvResourcesHazards.pdf

[33] California Department of Water Resources, *California's Groundwater Bulletin 118, Central Coast Hydrologic Region, Gilroy-Hollister Groundwater Basin, Llagas Subbasin*, February 27, 2004. Available at http://www.water.ca.gov/pubs/groundwater/bulletin_118/basindescriptions/3-3.01.pdf

within Parcel A, the location of the project's private park. With implementation of the required stormwater controls, the project would not result in runoff that would cause on- or off-site erosion or flooding, exceed the capacity of the existing storm sewer system, or provide an additional source of polluted runoff. Therefore, impacts related to these topics would be less than significant.

9g, 9h, 9i, 9j. Flood Hazards

100-Year Flood. According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps, the project area is located well outside of the 100-year flood zone associated with the closest drainage channel, Madrone Channel.[34] Furthermore, the City of Morgan Hill has not identified a 100-year flood zone at the project site.[35] Therefore, there would be no impact related to placement of housing in a 100-year flood hazard area or impedance or redirection of flood flows.

Inundation by Dam Failure. Dams located near Morgan Hill include Anderson Dam and Chesbro Dam. According to the Association of Bay Area Governments (ABAG), almost all of the valley floor terrain in Morgan Hill is within the area that would be inundated if these dams were to fail with reservoirs at full capacity. The project site is located in the dam failure inundation area of Anderson Reservoir.[36] The potential for flooding on the site is considered to be negligible to very low and, consequently, impacts related to flooding as a result of failure of a levee or dam would be less than significant.

Inundation by Seiche, Tsunami, or Mudflow. The project site is located at an elevation of approximately 367 to 360 feet above mean sea level, more than 18 miles inland from the Pacific Ocean coastline, and separated from the coast by mountainous terrain; therefore, there would be no risk associated with tsunamis which are large sea waves. Seiches are standing waves caused by large-scale, short-duration phenomena (e.g. wind or atmospheric variations or seismic activity) that result from the oscillation of confined bodies of water (such as reservoirs and lakes) that may damage low-lying adjacent areas as a result of changes in the surface water elevation. The project site is not located in the vicinity of any confined water bodies and would therefore not be subject to a seiche. Based on this, there would be no impact related to exposure of people or structures to significant risk of loss, injury, or death involving seiche, or tsunami. Risks associated with landslide-induced mudflows are discussed in Geology and Soils.

Mitigation Measure – Hydrology and Water Quality (HYD)

Mitigation Measure. The project site reportedly has a water well, but the location of the well is unknown and was not found during a survey of the property for the Phase I Environmental Site Assessment. The following measure shall be implemented by the project applicant to reduce the project's hydrology and water quality impacts to a less-than-significant level:

HYD-1: Properly Abandon Site Well*. The project sponsor shall determine the location of the site's water well, if present, prior to the start of project construction. The applicant shall retain a licensed well driller to destroy or abandon the water well at the project site in accordance with the standards specified in Santa Clara Valley Water District Ordinance 90-1 and the California Water Well Standards developed by the California Department of Water Resources (http://www.water.ca.gov/groundwater/well_info_and_other/california_well_standards/well_standards_content.html). Documentation of appropriate disposal shall be submitted to the City of Morgan Hill Building Inspection Department prior to issuance of a demolition permit.*

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[34] Federal Emergency Management Agency (FEMA). *Flood Insurance Rate Map, Santa Clara County, California and Unincorporated Areas, Panel 444 of 830. Map Number 06085C0444H,* May 18, 2009.

[35] City of Morgan Hill, *Morgan Hill 2035 General Plan*, July 27, 2016.

[36] Association of Bay Area Governments, *Dam Failure Inundation Hazard Map for Morgan Hill*, 1995. Available online at http://www.abag.ca.gov/cgi-bin/pickdamx.pl.

Issues (and Supporting Information Sources)	Potentially Significant Impact	Less than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
10. Land Use and Planning - Would the project:				
a) Physically divide an established community?				X
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?				X
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?				X

10a. Divide an Established Community

The project site has a General Plan land use designation (General Plan Land Use Diagram, 2016) of Residential Detached Medium (up to 7 dwelling units per acre). The zoning for the project site is Residential Detached Medium Density (RDM 7,000), similar to residential zoning and development surrounding the site.

The project site is surrounded by single-family residential development. Consequently, the proposed project would not divide an established community, but rather complement and connect the surrounding established neighborhoods.

10b. Project Consistency with Land Use Plans and Policies

The project would be subject to policies of the Morgan Hill General Plan Community and Neighborhood Form Element. The project would be consistent with pertinent policies of this General Plan element. Relevant policies and project consistency with these policies are discussed below:

General Plan Policies	Project Consistency
Community and Neighborhood Form Element *Goal CNF 11: High quality, aesthetically pleasing, livable, sustainable, well-planned residential neighborhoods, well-connected to neighborhood services.*	
New Subdivisions	
Policy CNF-11.2. Well-Designed Residential Neighborhoods. Design residential neighborhoods so they are distinct and buffered from non-residential uses.	Consistent. As an in-fill residential project, the proposed subdivision would ensure the consolidation of single-family uses within the project area. The site is surrounded by other single-family residential neighborhoods and is zoned for similar residential development. The project proposes site design and architectural features that would be consistent with the surrounding residential uses.
Policy CNF-11.4. Internal Connectivity. Encourage the street network in new subdivisions to feature a high level of internal connectivity. This may be accomplished through frequent intersection of internal streets, blocks averaging 400 to 600 feet in length.	Consistent. The small project site (4.84 ac.) has limited availability for an extensive street network; however, the project design includes an extension of Dakota Drive through the site with a connection to Juliann Way/Weichert Drive. The internal access design also includes a cul-de-sac (Lotus Court) that extends from Lotus Way. Internal blocks range from 200 to 350 feet in length.

General Plan Policies	Project Consistency
Policy CNF-11.5. Outside Connections. Require new subdivisions to provide multiple connections to surrounding community. Methods to achieve this include: • *Providing multiple points of entry into the project for motorists, bicyclists and pedestrians.* • *Extending the existing street pattern at the edges of the subdivision into the site. Extended streets should match the type and scale of streets to which they connect.* • *Installing landscaping and street improve- ments at the edge of subdivisions that appear as common amenities shared with adjacent neighborhoods.* • *Minimizing the use of gates, fences, and walls that separate the subdivision from the surrounding community.* • *Planning for future connections to adjacent undeveloped property.*	Consistent. The internal street design provides connectivity between existing neighborhoods to the east and west of the project site. Access to the proposed subdivision would be available from Diana Avenue, Lotus Way, and Weichert Drive for motorists, bicyclists, and pedestrians. Internal streets would be extended Lotus Way, Dakota Drive, and Weichert Drive. The western stub of proposed Juliann Way could connect to the eastern terminus of Juliann Way approximately 210 feet west of the project site. The project design also includes the planting of street trees, landscaping, and other street improvements at the edges of the site along Lotus Way and Diana Avenue. No gates, fences, or walls would separate the subdivision from adjoining neighborhoods.
Policy CNF-11.8. Multi-Modal Transportation System. Require new subdivisions to contain a network of streets, sidewalks, trails, and transit facilities that accommodate all modes of transportation. Methods to achieve this may include: • *Incorporating complete streets designed for low vehicle speeds.* • *Planting trees along both sides of streets.* • *Installing bus stops, shelters, and benches in or adjacent to the project.* • *Providing safe walking and bicycling routes to schools, parks, and other youth destinations.*	Consistent. The site street design includes internal intersections, street configurations, and cul-de-sac extension from existing roadways to promote low vehicle speeds. Sidewalk development would include street trees to promote pedestrian use. The proposed project also encourages multi-modal transportation by extending safe walking and bicycling routes to existing streets leading to commercial and community service areas.
Policy CNF-11.9. Continuous Sidewalks. Require continuous sidewalks along both sides of the street frontage.	Consistent. The project includes sidewalks along both sides of street frontages.
Policy CNF-11.10. Open Space. Require new subdivisions to feature integrated common open spaces parks, and community facilities that serve as social and, design focal points. Open spaces should be a close walking distance from all residents and should be large enough to be useful for residents.	Consistent. The project design specifies a private park area at the center of the site, providing open space and recreational facilities that include a ADA- accessible tot lot, paths, horseshoe pits, raised gardens, a BBQ, and picnic table. The maximum distance from a project residence to the park would be 750 feet.
Policy CNF-11.11. Mix of Housing Types. Encourage a mix of housing types and lot sizes within residential projects with five or more lots or units.	Consistent. The proposed project is consistent with the City's objective of providing a variety and mix of housing types with an emphasis on encouraging single-family development in the community. Lot sizes range from 3,862 square feet to 9,228 square feet with a majority of lots in the 7,000 to 8,000 square feet size range.

General Plan Policies	Project Consistency
Policy CNF-11.12. Design Variation. Require new residential subdivisions to feature variation in lot and building design to create visually interesting and distinctive neighborhoods. This may be accomplished by: • *Limiting repetition of home models, particularly on adjacent lots.* • *Utilizing a cohesive architectural theme but incorporating variation in architectural details.* • *Providing variation in one and two-story building elements.* • *Providing variation in front, side, and rear setbacks.* • *Providing variation in the width and size of lots.*	Consistent. The proposed project is consistent with the City's objective of providing a variety and mix of housing types with an emphasis on encouraging single-family development in the community. The project also promotes the rehabilitation of single-family neighborhoods through the replacement of existing substandard housing with housing constructed to current building codes. The 24 new residential units would replace two homes presently occupying the site. The 24 proposed residences include both one- and two-story residences in one of four various plan types.
Policy CNF-11.13. Active Public Realm. Require new subdivisions to feature an active and pedestrian-friendly public realm. This may be accomplished through locating front entries to face the street or other public space, designing porches and front yards to enhance the social role of streets, and incorporating alleys to allow for rear-loaded units.	Consistent. The proposed residential development includes home designs that feature porches for all of the residence plans, with front entries oriented to public streets. Sidewalks on both sides of the project streets would further encourage an active and pedestrian-friendly public space.

The project site is zoned as Residential Detached Medium Density (RDM-7,000). The purpose of the residential detached zoning districts is to support attractive, safe, and friendly single-family residential neighborhoods consistent with Morgan Hill's unique small-town feel. Development within the residential detached zoning districts features high quality design that enhances the visual character of the community. The mass, scale, and design of new homes support pleasant and walkable neighborhoods that complement Morgan Hill's existing community character. The RDM zoning district is to provide locations for detached single-family homes and a limited number of duet units in medium-density single-family neighborhoods. Permitted uses in the RDM district include: single-family detached dwellings, home day care accessory dwelling units, duets, and small residential care facilities.

The proposed zoning for the project site includes a Planned Development (PD) Combining District. The purpose of the Planned Development *(*PD*)* combining district is to allow for high quality development that deviates from standards and regulations applicable to base zoning districts in Morgan Hill. The PD Combining District is intended to promote creativity in building design, flexibility in permitted land uses, and innovation in development concepts. The PD Combining District provides land owners with enhanced flexibility to take advantage of unique site characteristics and develop projects that will provide public benefits for residents, employees, and visitors. The review and approval of the PD Combining District is subject to the provisions of Chapter 18.30.050 of the City of Morgan Hill Municipal Code.

As required by City ordinance, the project applicant has prepared a Site Development Plan for the development of 24 residential lots on the 4.84-acre parcel. The development of 24 single-family detached dwellings would be consistent with permitted uses in the RDM-7,000 zone. The project site plan indicates that the single-family homes proposed for Lots 22 though 24 would front on Diana Avenue and would be improved to current City standards, consistent with existing street improvements east and west of the site. Lotus Way between Diana Avenue and Dakota Drive, adjoining the project site's western boundary, would also be improved to provide access to the northern section of the project site. A cul-de-sac (Lotus Court) would extend into the site for development of Lots 16 through 21. At the intersection of Lotus Way, Dakota Drive would be extended eastward into the site and extend northward through the middle of the project site. The extension of Dakota Drive would serve Lots 4 through 15, and Parcel A (Park Site). Weichert Drive would be extended from the east side of the project site to its western boundary with an

undeveloped parcel; this section would intersect the planned Dakota Drive extension on the site and serve Lots 1 through 3.

Lands surrounding the project site are currently developed with various single-family residential uses consistent with project proposal.

The proposed residential development would be similar to existing residential uses that presently adjoin the project site and would not conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect.

10c. Conflict with Habitat Conservation or Natural Community Conservation Plans

A portion of the project area is included within an area subject to the Santa Clara Valley Habitat Plan and a natural community conservation plan that provide direction for future development in the area. The Habitat Plan and its requirements are discussed in Section 4, *Biological Resources.* Compliance with the City of Morgan Hill's adopted Ordinance No. 2057 and Chapter 18.132 of the City of Morgan Hill Municipal Code would implement the provisions of the HCP/NCCP to address the need for the conservation and protection of natural resources within the community and county.

Issues (and Supporting Information Sources)	Potentially Significant Impact	Less than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
11. Mineral Resources - Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?				X
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?				X

11a, 11b. Mineral Resources

The Morgan Hill General Plan does not identify any regionally or locally important mineral resources within the City of Morgan Hill.

Issues (and Supporting Information Sources)	Potentially Significant Impact	Less than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
12. Noise - Would the project result in:				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?			X	
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?			X	
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?			X	
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?			X	

Issues (and Supporting Information Sources)	Potentially Significant Impact	Less than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?				X
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?				X

A detailed noise study was completed as part of this Initial Study by Edward L. Pack Associates, Inc. (ELPA) in April 2019 and it is included in **Attachment 3** of this report and findings of this report are summarized below.

Existing Noise Environment

Noise-Sensitive Receptors. Certain land uses are particularly sensitive to noise, including schools, hospitals, rest homes, long-term medical and mental care facilities, places of worship, and parks and recreation areas. Residential areas are also considered noise sensitive, especially during the nighttime hours. Existing residential receptors surround the project site.

Existing Noise Levels. The primary sources of noise at the project site are local traffic along surrounding residential streets, residential activities, with distant freeway traffic noise in the background. In order to determine the highest noise levels on the project site, noise measurements were collected along the northern and eastern project boundaries at the closest proximities to the two predominant noise sources in the site vicinity: U.S. Highway 101 and Diana Avenue. Existing noise levels were measured at 57 dBA L_{dn} (or dB DNL as referenced in the ELPA study) at 1,320 feet from the U.S. Highway 101 centerline and 60 dBA L_{dn} at 33 feet from the Diana Avenue centerline. Under future traffic conditions, noise levels at the site are projected to increase by 1 to 2 dBA.

Applicable Noise Standards and Significance Criteria

Morgan Hill 2035 General Plan Safety, Services, and Infrastructure Element. Table SSI-1 of the Safety, Services, and Infrastructure Element presents acceptable exterior noise level standards, utilizing CNEL to define acceptable noise exposures for various land uses. These noise standards indicate that noise levels up to 60 dBA (CNEL) are considered to be "normally acceptable" for single-family residential uses. However, in areas where noise levels are between 55 dBA and 70 dBA (CNEL), noise levels are considered to be "conditionally acceptable" and new construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.

Additional exterior and interior noise level standards are also specified in the following policies of the Safety, Services, and Infrastructure Element:

Policy SSI-8.1 ***Exterior Noise Level Standards****. Require new development projects to be designed and constructed to meet acceptable exterior noise level standards (see Table SSI-1), as follows:*

- *Apply a maximum exterior noise level of 60 dBA L_{dn} in residential areas where outdoor use is a major consideration (e.g., backyards in single-family housing developments and recreation areas in multi-family housing projects). Where the City determines that providing an L_{dn} of 60 dBA or lower cannot be achieved after the*

application of reasonable and feasible mitigation, an Ldn of 65 dBA may be permitted.

- *Indoor noise levels should not exceed an Ldn of 45 dBA in new residential housing units.*
- *Noise levels in new residential development exposed to an exterior Ldn 60 dBA or greater should be limited to a maximum instantaneous noise level (e.g., trucks on busy streets, train warning whistles) in bedrooms of 50 dBA. Maximum instantaneous noise levels in all other habitable rooms should not exceed 55 dBA. The maximum outdoor noise level for new residences near the railroad shall be 70 dBA Ldn, recognizing that train noise is characterized by relatively few loud events.*

Policy SSI-8.1 ***Traffic Noise Level Standards.*** *Consider noise level increases resulting from traffic associated with new projects significant if: a) the noise level increase is 5 dBA Ldn or greater, with a future noise level of less than 60 dBA Ldn, or b) the noise level increase is 3 dBA Ldn or greater, with a future noise level of 60 dBA Ldn or greater.*

Municipal Code 18.76.130, Vibration. The City prohibits the transmission of vibration through the ground (discernible without instruments) beyond the property line. Vibrations from temporary construction, demolition, and vehicles that enter and leave the lot (e.g., construction equipment, trains, trucks, etc.) are exempt from this standard. Therefore, this code requirement is not applied as a significance threshold for construction-related vibration in the impact discussion below.

12a. Noise Compatibility of Proposed Uses

Exterior Noise Exposure Levels. Proposed residences would be setback a minimum of 53 feet from the Diana Avenue centerline and 1,258 feet from the U.S. Highway 101 centerline, When measured noise levels (presented above) are adjusted for distance, existing noise levels at the most impacted proposed rear and side yards and minimum building setback would be 59 dBA Ldn at 53 feet from the Diana Avenue centerline and 57 dBA Ldn at 1,258 feet from the U.S. Highway 101 centerline. Under future traffic conditions, noise exposure is expected to increase to 60 dB DNL at the proposed residential property closest to Diana Avenue and 59 dBA Ldn at the proposed residential property closest to the U.S. Highway 101 freeway. Since these noise levels exceed 55 dBA Ldn, they are considered "conditionally acceptable" for residential uses and a detailed noise analysis is required by the City (see above). The detailed noise study by ELPA has been completed in response to this requirement and this study indicates that existing and future noise levels at all proposed residential properties (including rear and side yards) would not exceed the City's 60-dBA exterior noise limit (see Policy SSI-8.1, bullet 1 above), a less-than-significant impact. Therefore, no mitigation would be required.

Interior Noise Exposure Levels. A 25-dB reduction would be achieved with a typical building shell and closed window condition. When this reduction is applied to the above exterior noise exposures at the minimum building setback locations under existing and future traffic conditions, interior noise levels would be 34 and 35 dBA Ldn, respectively, at the proposed residence located closest to Diana Avenue and 32 and 34 dBA Ldn, respectively, at the proposed residence closest to the U.S. Highway 101 freeway. Existing and future interior noise levels within all proposed residences would not exceed the City's 45-dBA interior noise limit (see Policy SSI-8.1, bullet 2 above), a less-than-significant impact. Therefore, no mitigation would be required.

12b. Groundborne Noise and Vibration

The closest existing structure that would be subject to construction-related vibration effects would be adjacent single-family residences, which are located as close as approximately 5 to 50 feet from the project site boundaries. At 6 feet, groundborne vibration and noise levels generated by most types of

construction activities[37] would not exceed threshold levels for cosmetic damage to structures.[38] However, operation of impact or vibration pile drivers or large truck-mounted compactors can generate higher vibration levels than other construction equipment. At distances of less than 12 feet, vibration from operation of such equipment could cause cosmetic damage to adjacent structures. However, pile driving equipment is not proposed to be used during project construction and use of large compactors may only be used during road construction. Existing structures would be located 40 feet or more from proposed roadways. Therefore, construction-related vibration effects would have a less-than-significant vibration impact.

Groundborne noise refers to a condition where noise is experienced inside a building or structure as a result of vibrations produced outside of the building and transmitted as ground vibration between the source and receiver. Groundborne noise can be problematic in situations where the primary airborne noise path is blocked, such as in the case of a subway tunnel passing in close proximity to homes or other noise-sensitive structures. However, proposed noise and vibration-generating construction activities associated with the proposed project would involve techniques that primarily generate airborne noise and surface vibration. Any potential groundborne noise from construction activities would be imperceptible, and therefore would have no impact.

12c. Long-term Noise Increases

The proposed 24-unit residential project is expected to generate a total of 228 daily trips.[39] Existing traffic volumes on Diana Avenue west of the site are estimated at approximately 4,320 ADT (average daily traffic).[40] The addition of 228 daily project-related trips to Diana Avenue, a 5 percent traffic increase, would result in a noise increase of less than 1 dB. Based on the thresholds for traffic noise level increases specified in Policy SSI-8.5 (above), such a traffic noise increase would be less than significant.

A park is proposed to be located adjacent to the project's eastern boundary. The backyard (pool facilities area) of a single-story residence located at the south end of Belletto Drive would be immediately east of this park and the residence would be setback at least 50 feet northeast from the park's eastern boundary. The park would be equipped with a tot lot play area, horseshoe pit, barbeque, and picnic table and only accessible to project residents. It is expected that these activities would generate noise levels that are typical of residential neighborhoods. Since this area would not be located immediately adjacent to existing residences to the east, park facilities would be limited in scope, and their use would be restricted to project residents, noise generated by the proposed park use is considered to be less than significant. In

[37] Bulldozers, jackhammers, and loaded trucks typically generate vibration levels on the order of 0.003 to 0.089 inches per second, peak particle velocity (in/sec PPV) at 25 feet and 0.014 to 0.428 in/sec PPV at 6 feet (U.S. Federal Transit Administration, *Transit Noise and Vibration Impact Assessment*. May 2006. Available online at http://www.fta.dot.gov/12347_2233.html.

[38] For new residential structures, Caltrans recommends a threshold of 0.5 in/sec PPV for continuous/frequent intermittent vibrations (i.e., impact pile drivers, pogo-stick compactors, crack-and-seat equipment, vibratory pile drivers, and vibratory compact equipment and 1.0 in/sec PPV for transient vibrations (i.e., a single isolated vibration event such as blasting or drop balls) (California Department of Transportation (Caltrans), *Transportation and Construction Vibration Guidance Manual*, September 2013. Available online at http://www.dot.ca.gov/hq/env/noise/pub/TCVGM_Sep13_FINAL.pdf).

[39] Based on a daily trip generation rate of 9.5 trips per unit for single-family residences (9.5 average daily trips/unit x 24 project units = 228 daily trips). Source: Institute of Transportation Engineers, *Trip Generation Manual, 10th Edition*, as cited in the Morgan Hill 2035 DEIR Appendix B, January 13, 2016. Available online at https://www.morgan-hill.ca.gov/1495/MH2035-Final-EIR.

[40] City of Morgan Hill, *Initial Study: Diana Avenue – Bagoye, Morgan Hill, CA*, May 2014. Available for public review at the City's Community Development Department located at 17575 Peak Avenue. In this Initial Study, traffic volumes on Diana Avenue west of the site (at Calle Mazatan) were estimated at 3,824 ADT (average daily traffic)and addition of 494 daily trips from the Diana Avenue-Bagoye Project (Esperanza Development) would result in an average daily traffic volume of approximately 4,320.

addition, the Morgan Hill Municipal Code prohibits disturbance of neighbors and code enforcement would ensure that the potential for noise disturbance would be less than significant.[41]

12d. Short-Term Noise Increases

Chapter 8.28 of the Morgan Hill Municipal Code[42] prohibits construction activities (including operation of any pile driver, steam shovel, pneumatic hammer, derrick, steam or electric hoist or other appliance) between 8:00 p.m. and 7:00 a.m., Monday through Friday, and between 6:00 p.m. and 9:00 a.m. on Saturdays. Construction activities may not occur on Sundays or federal holidays. The Morgan Hill Municipal Code does not specify any short-term noise level limits.

Project construction would result in temporary short-term noise increases due to the operation of heavy equipment. Construction noise sources range from about 76 to 85 dBA (L_{eq})[43] at 50 feet for the types of construction equipment expected to be used for project construction.[44] The potential for construction-related noise increases to adversely affect nearby residential receptors would depend on the location and proximity of construction activities to these receptors. Temporary disturbance (e.g., speech interference) can occur if the noise level in the interior of a building exceeds 45 to 60 dBA.[45] To maintain such interior noise levels, exterior noise levels at the closest residences (with windows closed) should not exceed 80 dBA and this exterior noise level is used as a significance threshold. When adjusted for average distances (24 to 93 feet) to existing adjacent residences and equipment usage, construction noise levels are estimated to range between 54 dBA and 74 dBA (see Table I of Attachment 3), which would not exceed the 80-dBA threshold, a less-than-significant impact. When considered over a longer time period (24 hours), construction activities could generate noise levels of up to 67 to 79 dBA L_{dn} at adjacent residences, which could result in noticeable temporary noise increases of 3 dBA or more on the noisiest days. Given the proximity of existing residential receptors to the project site, Standard Conditions of Approval have been included to to reduce the potential for noise disturbance of existing neighbors.

12e. Airport-Related Issues

The project site is not located within an airport land use plan. There is no public airport, public use airport, or private airstrip located within two miles of the project site. The proposed project would not expose people residing or working in the area to excessive noise levels. Therefore, there would be no airport-related noise impact.

Issues (and Supporting Information Sources)	Potentially Significant Impact	Less than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
13. Population and Housing - Would the project:				

[41] Section 8.28.020 (Unlawful Behavior Defined) states that it is unlawful for any person to make or continue, or cause to be made or continued, any loud, disturbing, unnecessary or unusual noise or any noise which annoys, disturbs, injures or endangers the comfort, health, repose, peace or safety of other persons within the city. Additionally, Section 8.28.40(k) states the operation of any radio, instrument, phonograph, machine or device for the producing or reproducing of sound shall between the hours of 11:00 p.m. and 7:00 a.m. in such manner as to be plainly audible at a distance of 50 feet from the building, structure or vehicle in which such device is located which shall be prima facie evidence of a violation of the provisions of this section.

[42] Available online at http://search.municode.com/html/16502/index.html.

[43] Environmental noise is measured in units of dBA. The dBA, or A-weighted decibel, refers to a scale of noise measurement that approximates the range of sensitivity of the human ear to sounds of different frequencies. Variations in noise exposure over time are typically expressed in terms of a steady-state energy level (called L_{eq}) that represents the acoustical energy of a given measurement.

[44] See a detailed list of construction equipment and associated reference noise levels at 50 feet from the source in Table 7-1 (p. 7 of the ELPA study), and estimated equipment noise levels at adjacent residences in Table I (p. 8) of the ELPA study.

City of Morgan Hill, 2019. Personal communication, Joey Dinh, Associate Planner, June 10, 2019.

Issues (and Supporting Information Sources)	Potentially Significant Impact	Less than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?			X	
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?			X	
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?				X

13a. Growth-Inducement Impacts

The Residential Development Control System (RDCS) is Morgan Hill's voter-approved growth management system that limits the total amount and pace of new residential construction and encourages high-quality development that enhances residents' quality of life. The RDCS was first established in 1977 and has been extended and modified multiple times by voters since then.

In November of 2016 the voters approved the current version of the RDCS, known as Measure S. This updated RDCS establishes a maximum population limit of 58,200 in 2035 and a maximum of 215 allotments available each year. The project proposed for the 4.84-acre site presently has 24 allotments. The award of residential building allotments ensures that growth induced by the project would be within the City's planned growth ceiling.

13b, 13c. Displacement of Housing or Residents

The subject property contains an open, fallow grass field on 93 percent of the site and two homes. The displacement of the two homes as a result of project development would be offset by the development of 24 new single-family detached dwellings. The proposed project would provide 22 additional residential units on the project site to serve the community's future housing needs.

Issues (and Supporting Information Sources)	Potentially Significant Impact	Less than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
14. Public Services -				
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
Fire protection?			X	
Police protection?			X	
Schools?			X	
Parks?			X	
Other public facilities?				X

14a. Public Services

The City of Morgan Hill contracts with CAL FIRE (State Department of Forestry and Fire Protection) for fire protection services. There are three fire stations located within the City boundaries: El Toro Station, located at 18300 Old Monterey Road; Dunne-Hill Station, located at 2100 Dunne Avenue; and the CAL FIRE station at 15670 Monterey Street. The project site is located approximately 1.5 miles southeast of the El Toro station, approximately 1.5 miles north of the CAL FIRE station, and approximately 2 miles west of the Dunne-Hill Station. The project site is within the five-minute response boundary of all three of these fire stations.[46] Response time to the project site is approximately four minutes.

The Morgan Hill Police Department provides police protection services to incorporated areas in the project vicinity. The project site is located within the Department's normal patrol routes due to other nearby residential development located within the City.

The Morgan Hill Unified School District (MHUSD) operates public education facilities that serve the project site and surrounding area. The City of Morgan Hill is served by eight elementary schools, two middle schools, two high schools, one continuation school, and one community adult school. Current student population in the District is 9,133 pupils.[47] The existing school facilities have sufficient available capacity to accommodate the approximately 11 students[48] that would be generated by the proposed project.

The project would incrementally increase demand for fire and police protection services, and generate new students at local schools. Both the City of Morgan Hill and Morgan Hill Unified School District collect development impact fees to help pay for fire and police protection capital improvements and finance additional school facilities. In general, payment of these fees is considered adequate to mitigate the project's impact on these services to a less-than-significant level.

Issues (and Supporting Information Sources)	Potentially Significant Impact	Less than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
15. Recreation -				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?			X	
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?			X	

15a. Demand for Recreational Facilities

Proposed development of the 4.84-acre project site would create new residential development, which in turn would induce population growth in the Morgan Hill area. Project-related population increases would incrementally increase demand on existing recreational facilities.

In order to alleviate additional demand for recreational facilities from project residents, the proposed project includes the development of private recreational space and facilities on the project site. The project plans include the development of a 0.27-acre (Parcel A) private park with a tot lot. Park amenities would include: ADA accessible pedestal BBQ, picnic table, raised garden beds, horseshoe pit, metal benches, extensive landscaping, walkways, and fencing surrounding the park. On-site recreational facility

[46] California Department of Forestry and Fire Protection, Santa Clara Unit, Chief Steven F. Woodill. Proposal to the City of Morgan Hill For Fire & Emergency Service Delivery. March 2, 2012.
[47] Ms. Anessa Espinosa, Facilities Director, MHUSD, telephone communication, February 28, 2019.
[48] Based upon a MHUSD student generation rate of 0.466 K-12 students per household.

services are supplemented with existing public recreational facilities[49] located in the immediate project vicinity. These include: 1) Diana Park, 2) Stone Creek Park, 3) Diana Estates Park, and 4) Belle Estates Park. Furthermore, newly completed parks in the nearby Downtown include Railroad Park, Third Street Park, and Nob Hill Trail Park.[50] The proposed project park would provide a public benefit through the development of recreational facilities that would offset increased demand for recreational services from project residents.

15b. Impacts Related to Construction of Recreational Facilities

The project would include a 0.27-acre private park within the neighborhood on the eastern perimeter between Lots 8 and 18. Park amenities would include walkways, picnic/barbecue areas, a tot lot, horseshoe facilities, and landscaping. The proposed park would also serve as a bioretention area to collect storm runoff generated by the project's impervious surfaces. Construction of these recreational facilities would not have a significant effect on the environment. Therefore, the impact related to the construction project recreational facilities would be less than significant.

Issues (and Supporting Information Sources)	Potentially Significant Impact	Less than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
16. Transportation/Traffic - Would the project:				
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?				X
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?				X
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?				X
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?				X
e) Result in inadequate emergency access?				X
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?			X	

[49] https://www.morgan-hill.ca.gov/244/Parks-Fields

[50] http://www.morganhill.ca.gov/1248/Downtown-Parks-and-Trails

16a, 16b, 16e. Impacts on the Circulation System, Conflicts with Congestion Management Program, and Traffic Hazards

The proposed 24-unit residential project is expected to generate a total of 228 daily trips with 18 trips during the AM peak hour and 24 trips during the PM peak hour.[51] According to guidelines published by the Santa Clara Valley Transportation Authority (VTA),[48] the congestion management agency for Santa Clara County, a detailed traffic study is required only if the project is estimated to generate 100 or more peak hour trips. The City has adopted its own guidelines that are generally consistent with the County. For projects generating less than 100 peak hour trips, local jurisdictions typically require focused studies addressing site access and circulation issues. Due to the small size of the proposed project, the impacts on adjacent and nearby roads are expected to be minimal. There is adequate available roadway capacity on adjacent and nearby streets to accommodate project-related traffic increases, and no significant impacts are anticipated.

The project would provide 48 covered off-street parking spaces and on-street parking would be allowed on all project streets, including site frontages along the existing Diana Avenue and Lotus Way. Therefore, the project would comply with the City of Morgan Hill Municipal Code parking requirements: a minimum of two covered parking spaces per dwelling unit and one guest parking space for each four dwelling units.

Site access and internal streets on the project site would be required to conform to City design standards, thereby ensuring the use of approved transportation system design elements as part of the project plans. City review of the project plans indicates that the proposed street layout meets City street standards. A project transportation system design that conforms to City standards would minimize the potential for traffic hazards through the application of standard, uniform design elements for local public streets. As a result of a project meeting with the City's Engineering Division on December 20, 2018, the project's proposed Site Development plan (February 2019) reflects a public street design that is acceptable to the City Engineer.

16c. Air Traffic Patterns

The project site is not located within an airport land use plan, nor is there a public airport, public use airport, or private airstrip located in the project vicinity. The San Martin Airport, approximately 4 miles to the southeast of the project site, is the closest airport to the property. Therefore, the project would have no impact on air traffic patterns, would not directly increase air traffic levels, nor would there be any change in location that results in substantial safety risks.

16e. Emergency Access

The project site has frontage on Diana Avenue and Lotus Way. Secondary access would be provided by the proposed connection to Weichert Drive to the east. In addition, the proposed project includes a road stub for future connection with Juliann Way to the west of the site. With such primary and secondary access connections, there would be no public safety impacts associated with emergency access.

16f. Conflicts with Alternative Transportation (Pedestrian, Bicycle, and Transit Access)

The project site's frontage along Diana Avenue currently does not include sidewalks, paths, bicycle lanes, or similar street improvements for alternative transportation such as bicyclist and pedestrian access. East and west of the project site, Diana Avenue is improved to City street standards that provide appropriate street widths, sidewalks, curbs, driveways, and associated improvements. Fully improved access to the project site is also available from Lotus Way along the southwestern site frontage.

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[51] Institute of Transportation Engineers Trip Generation Manual, 10th Edition, 2017. Trip generation estimates for the 24-unit project would actually be slightly lower since existing residences on the project site already generate traffic, yielding a slightly lower net traffic increase.

The proposed project would provide street access from Diana Avenue and Lotus Way to the project site's internal streets. Project access improvements would include sidewalks on both sides of all project streets as well as along site frontages on Diana Avenue and Lotus Way.

With site improvements, pedestrians and bicyclists could access the Butterfield/Morgan Hill Caltrain Station, located one mile to the southwest, via Diana Avenue and Butterfield Boulevard. The Morgan Hill (2035) General Plan identifies a proposed bike lane along both sides of Diana Avenue, which would further encourage use of bicycles when these lanes are eventually installed. The General Plan also designates two proposed bike lanes (located west and east of the site) that would connect project residents with commercial uses on East Dunne Avenue, which are located approximately 0.5 miles south of the site. With the proposed connection to Weichert Drive at the site's northeast boundary, the closest bus stops on East Main Avenue would be approximately 0.3 miles north of the site (via Weichert and Belletto Drive). Additionally, a proposed bike route is designated by the General Plan along Serene Drive between Diana Avenue and East Main Avenue and this bike route would be one block east of Belletto Drive. Given the project's proximity to local and regional transit, as well as commercial uses, the proposed project would support rather than conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities.

Issues (and Supporting Information Sources)	Potentially Significant Impact	Less than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
17. Tribal Cultural Resources – Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape sacred place, or object with cultural value to a California Native American tribe, and that is:				
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or				X
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.			X	

17a. Resources Listed or Eligible for Listing as Historical Resource

Assembly Bill 52, which went into effect in 2015, made Tribal Cultural Resources (TCR) a new CEQA resource. TCRs are defined as "sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe." Additionally, a lead agency can, at its discretion and supported by substantial evidence, choose to treat a resource as a TCR.

In compliance with AB 52, the City contacted all tribes listed by the NAHC in regard to the assessment of the City's tribal cultural resources as part of the General Plan environmental review process. The notification of General Plan and associated EIR availability for review was sent to members of the Muwekma Ohlone Indian Tribe, Ohlone Indian Tribe, Amah Mutsun Tribal Band, and the Indian Canyon Mutsun Band of Costonoan tribe. None of these tribes requested consultation.

17b. Significant Cultural Resource

The provisions of the Morgan Hill Municipal Code discussed above would protect Tribal Cultural Resources in the same way that the Municipal Code ensures the protection of archeological resources and a less-than-significant impact would result with respect to the potential for negative impacts to TCRs. The City's Municipal Code specifies measures that are consistent with mitigation measures identified by the State Office of Planning Research Technical Advisory: AB 52 and Tribal Cultural Resources in CEQA (June, 2017).

Issues (and Supporting Information Sources)	Potentially Significant Impact	Less than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
18. Utilities and Service Systems – Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?				X
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?			X	
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?			X	
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?			X	
e) Result in a determination by the wastewater treatment provider, which serves or may serve the project that it has adequate capacity to serve the projects projected demand in addition to the providers existing commitments?				X
f) Be served by a landfill with sufficient permitted capacity to accommodate the projects solid waste disposal needs?				X
g) Comply with federal, state, and local statutes and regulations related to solid waste?				X

18a, 18e. Wastewater Facilities and Service

Wastewater generated in Morgan Hill is treated by the joint Gilroy/Morgan Hill Wastewater Treatment Plan located in Gilroy. There are municipal sewer lines in Diana Avenue, Lotus Way, and Dakota Drive currently serving existing development on and around the project site.

18b, 18d. Water Facilities and Service

Municipal water service in the project area is provided by the City of Morgan Hill. The City's water supply is from groundwater in aquifers underlying the City.

18c. Stormwater Drainage Facilities

At present, there are no storm drainage facilities located on the project site, but there are existing storm drains in Diana Avenue, Dakota Drive, and Lotus Way adjoining the project site (for more discussion on storm drainage, please see Section 9, Hydrology and Water Quality).

18f, 18g. Solid Waste

South Valley Refuse Disposal provides solid waste collection service to the project area. Solid waste is disposed at the sanitary landfill in Pacheco Pass in Gilroy.

As of January 1, 2017, the City has updated waste diversion requirements to comply with the 2016 California Green Building Standard Code. The 2016 CalGreen Code requires the reduction of construction waste, specifically Section 4.408.1:

> *Recycle and/or salvage for reuse a minimum of 65% of the nonhazardous construction and demolition waste in accordance with either Section 4.408.2, 4.408.3 or 4.408.4; OR meet a more stringent local construction and demolition waste management ordinance.*

Newly constructed buildings and demolition projects are required to divert from landfills at least 65 percent of the construction materials generated during the project. Additionally, Section 4.408.2 of the CalGreen requires the preparation and implementation of a construction waste management plan that are to be updated as necessary and available for examination during construction. A construction waste management plan must be submitted to the Building Division prior to permit issuance.

The project would incrementally increase demands on these public facilities, but the project will be responsible for extending these facilities onto the project site and completing necessary improvements to meet fire flow requirements and any other off-site utility improvements, if needed.

Issues (and Supporting Information Sources)	Potentially Significant Impact	Less than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
19. Mandatory Findings of Significance -				
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?		X		
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?			X	
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?			X	

19a, 19c. Significant Impacts on the Natural and Man-Made Environments

With mitigation measures specified above in Sections 3, 4, 8, and 9, the proposed project would not degrade the quality of the environment. As indicated in the above discussion, the project also would not substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory.

19b. Cumulative Impacts

The proposed project's action entailing subdivision of the 4.84-acre project parcel into 24 residential lots would not cause environmental impacts that would be cumulatively considerable when evaluated in conjunction with other current or probably projects.

The Residential Development Control System (RDCS) is Morgan Hill's voter-approved growth management system that limits the total amount and pace of new residential construction and encourages high-quality development that enhances residents' quality of life. The RDCS was first established in 1977 and has been extended and modified multiple times by voters since then.

In November of 2016 the voters approved the current version of the RDCS, known as Measure S. This updated RDCS establishes a maximum population limit of 58,200 in 2035 and a maximum of 215 allotments available each year. The project's contribution to cumulative growth effects on the City would be less than cumulatively considerable since new population could not occur until development allotments are obtained for the project site. These allotments ensure that growth induced by the project would be within the City's planned growth ceiling.

ATTACHMENT 1

BIOLOGICAL CONSTRAINTS REPORT
DIANA AVENUE, MORGAN HILL

BY

WOOD BIOLOGICAL CONSULTING

FEBRUARY 27, 2019

WOOD BIOLOGICAL CONSULTING
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March 8, 2019

Mr. Fritz Geier
Geier & Geier Consulting, Inc.
P.O. Box 5054
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(510) 644-2535

RE: Biological Constraints, Diana Avenue, Morgan Hill

Dear Mr. Geier:

This memorandum presents my observations from February 18, 2018, and conclusions regarding the potential biological constraints to the development of two parcels located on Diana Avenue, in Morgan Hill, Santa Clara County, CA (Figures 1 and 2). The parcels are APN 726-09-001 and 726-09-002.

This analysis is based on the following:

- Review of databases maintained by the California Natural Diversity Database (CNDDB, 2019), California Native Plant Society (CNPS, 2019), and the U.S. Fish and Wildlife Service (USFWS, 2019)
- Review of Santa Clara Valley Habitat Plan (SCVHA, 2019)
- Review of the Initial Study and environmental assessments for the nearby Diana Avenue – Bagoye subdivision (Geier & Geier Consulting, Inc., 2014)
- Review of geotechnical (Quantum Geotechnical, Inc., 2019), Phase I Environmental Site Assessment (Tetra Tech, Inc., 2019), and arborist (Smith Tree Specialists, Inc., 2019) reports for the proposed project site
- A reconnaissance survey on February 18, 2019
- Familiarity with the special-status plant and animal species and their associated habitats in the project region

This analysis is provided solely for the purpose of assisting the owner in understanding the potential biological constraints to the proposed development. It is not intended to provide a definitive statement as to the presence or absence of any special-status animal or plant species; such assessments are only possible after the performance of focused surveys following approved protocols.

SETTING

The study area focused on two parcels of undeveloped land situated north of the intersection of Diana Avenue and Lotus Way in Morgan Hill, Santa Clara County, California. The study area also included a buffer of up to 150 feet beyond the parcel boundaries, where access was available. The two parcels total 4.838 acres, with level topography at an elevation of between 361 and 367 feet above mean sea level. Residential neighborhoods border the majority of the site. Historically, the parcels and surrounding area were farmed as orchards and row crops. Currently, the parcels are a fallow field and a residence with

several sheds and outbuildings (Figure 2). Most of the larger parcel is subject to annual disking for weed control. The remainder is unmanaged grass or ruderal vegetation. There are several large trees and a few small shrubs on the parcel.

Vegetation on the property consists of non-native annual grassland perpetuated by annual weed maintenance and dominated by the non-native grasses slender oats (*Avena barbata*), ripgut brome (*Bromus diandrus*), and Italian rye grass (*Festuca perennis*), and the non-native forbs black mustard (*Brassica nigra*), curly dock (*Rumex crispus*), white-stemmed filaree (*Erodium moschatum*), common henbit (*Lamium amplexicaule*), and bur clover (*Medicago polymorpha*). Several coast live oak trees (*Quercus agrifolia*), a large Monterey pine (*Pinus radiata),* Bailey acacia (*Acacia baileyana*), and several smaller ornamental trees and shrubs also are present. Few native plant species were observed, limited to the few individuals of coast live oak and coyote brush. The majority of the site conforms to the California annual grassland association described in Sawyer et al (2009) or non-native annual grassland (Holland, 1986).

Observations of wildlife or their sign[1] were limited to transient species moving within the site during the limited reconnaissance survey. A variety of common bird species are likely to breed or forage on site, and several species of reptiles and other small mammals are expected to be occasionally present. Common and characteristic wildlife species of the region and habitat in the study area include American crow (*Corvus brachyrhynchos*), American robin (*Turdus migratorius*), Anna's hummingbird (*Calypte anna*), black phoebe (*Sayornis nigricans*), Botta's pocket gopher (*Thomomys bottae*), eastern fox squirrel (*Sciurus niger;* nest observed), California towhee (*Melozone crissalis*), Eurasian collared dove (*Streptopelia decaocto*), mourning dove (Zenaida macroura), northern mockingbird (*Mimus polyglottos*), California scrub jay (*Aphelocoma californica*), and white-crowned sparrow (*Zonotrichia leucophrys*). No passerine or raptor nests were detected on the property or in the vicinity.

SPECIAL-STATUS BIOLOGICAL RESOURCES

Plant and animal species are considered to have special status is they are listed or proposed for listing under the federal or State endangered species acts, meet the definition of Rare or Endangered under California Environmental Quality Act (CEQA), or are considered rare locally. Certain natural plant communities, wildlife habitats, landscape features are considered to have special status due to their restricted occurrence in the State, their tendency to support rare plant or animal species, or because impacts are restricted or otherwise regulated under federal, State, or local laws or ordinances. Pursuant to the guidelines of CEQA, any project that could result in significant adverse effects on special-status biological resources must, in most cases, incorporate measures to reduce potential impacts to a less-than-significant level.

Based on a review of the databases listed above, a total of 58 special-status plant species and 50 special-status animal species are known to occur in the project region. In addition, a total of 17 bird species of conservation concern and numerous migratory bird species are expected to occur in the project region. Complete data base print-outs are enclosed. The project site is not located within designated Critical Habitat for any federally listed plant or animal species.

Based on location information contained in the CNDDB, no special-status plant species have been recorded within a one-mile radius of the study area (Figure 3). Ten species are located within three miles, most of which are strongly associated with serpentine soils that are not present on or near the parcels.

[1] Animal signs include tracks, vocalization, scat, white-wash, feathers, fur, shed skin, nests, burrows, prey remains, odor, and dead individuals.

Likewise, the absence of serpentine soil precludes the occurrence on the property of the Serpentine Bunchgrass plant community, which is considered sensitive. Similarly, no riparian habitat is present on the site, precluding the sensitive plant community Sycamore Alluvial Woodland. No special-status plant species are considered to have any likelihood of occurring on site due to the absence of serpentine soil, historic and ongoing disking or mowing of the herbaceous layer, and the dominance of non-native and invasive plants on site. The performance of a focused floristic study in support of future analysis pursuant to CEQA is not warranted.

Based on the presence of suitable or marginally suitable grassland habitat, four additional special status plant species have low potential to occur in the study area. All are unlikely due to modification of the habitat through cultivation of orchard trees and annual disking of the herbaceous vegetation where these species would occur, or are known from populations a considerable distance from the study area (i.e., in the Mt. Hamilton range 10 miles north of the study area, or from hills east and west of Santa Clara Valley, more than 15 miles west and north of the study area. They are bent-flowered fiddleneck (*Amsinckia lunaris*), Tracy's eriastrum (*Eriastrum tracyi*), San Benito pentachaeta (*Pentachaeta exilis* ssp. *aeolica*), and two-fork clover (*Trifolium amoenum*). In addition, several plant species with CRPR Rank 4 also have low potential to occur in the study area, but are similarly unlikely due to modification of habitat and distance from known populations.

Based on location information contained in the CNDDB, four special-status animal species have been recorded within a one-mile radius of the study area (Figure 4). Western bumble bee (*Bombus occidentalis*) was documented nearby in 1947, but is presumed absent because it nests in burrows, which would be routinely disturbed by annual disking or mowing. A very old record from 1894 for coast horned lizard (*Phrynosoma blainvillii*) was documented in the general location of Morgan Hill, but suitable habitat is not present in the study area. Burrowing owl was documented up until 2003 at a school located 0.53 mile west of the project site, but is considered possibly extirpated (CNDDB, 2019).

A record for California tiger salamander (*Ambystoma californiense*) documented in 1981 (Occurrence #42) is within one mile to the northwest, but was in an area developed as residential housing since the observation. This record is considered extirpated (CNDDB, 2019). More recent observations of California tiger salamander, California red-legged frog (*Rana draytonii*), and western pond turtle (*Emys marmorata*) occurred at Chesebro Reservoir over 3.5 miles to the west-southwest, and on private land 2.5 mi southwest of the study area, but separated from it by residential development major roads, including Monterey Road. American badger has been documented relatively recently just over one mile from the study area, near the intersection of Cochrane Road and Route 101. Suitable habitat is not present in neighboring lands, and the study area is separated from suitable habitat by residential development. No large burrows were observed on the project site. San Francisco dusky-footed woodrat and white-tailed kite (*Elanus leucurus*) have been recorded in riparian habitat associated with Coyote Creek, located approximately 2.0 miles north of the study area, and separated from it by residential and commercial development, major roads, and Route 101. No nests of dusky-footed wood rat are present within the study area, and no raptor nests were observed.

Based on the presence of suitable or marginally suitable habitat, a total of 12 target special-status animals are considered to have a potential to occur in the study area. This includes nine birds (Allen's hummingbird [*Selasphorus sasin*], Cooper's hawk [*Accipiter cooperi*], Lawrence's goldfinch [*Carduelis lawrencei*], Nuttall's woodpecker [*Picoides nuttallii*], oak titmouse [*Baeopholus inornatus*], rufous hummingbird [*Selasphorus rufus*], song sparrow (*Melospiza melodia*), spotted towhee [*Pipilo maculatus clementae*]), and white-tailed kite [*Elanus leucurus*]), and three mammals hoary bat [*Lasiurus cinereus*], pallid bat [*Antrozous pallidus*], and Townsend's big-eared bat [*Corynorhinus townsendii*]). Although no special status bats were identified in the wildlife agency databases, several large trees had fissured bark or cavities that could support bat roosts, and the detached garage has crevices and gaps between its roofing

and walls. However, no evidence of occupation was observed in and around these trees or structure. The main house has closed eaves and n gap in the roofing, so does not provide bat roosting habitat.

Two special-status plant communities have been recorded in the project region. Serpentine Bunchgrass and Sycamore Alluvial Woodland are both associated with specific habitat conditions (serpentine soil and riparian floodplain), which are absent from the study area. Therefore, no special status plant communities are present or have the potential to occur in the study area.

PROTECTED TREES

The City of Morgan Hill recognizes the importance of trees to the community and has established policies and guidelines for the preservation of native plants in the City's Open Space and Conservation Element of the General Plan. Specifically, Goal 6 and Policy 6c of the Element state:

- Goal 6. Protection of native plants and animals

- 6c. Preserve outstanding natural features, such as the skyline of a prominent hill, rock outcroppings, and native and/or historically significant trees.

These guidelines are implemented through Chapter 12.32 of the City Municipal Code, Restrictions on Removal of Significant Trees. Section 12.32.020 of the Code defines the type of plant that qualifies as a "tree" and the legal protection afforded to such resources. The section establishes the following definition:

> 12.32.020 - Definitions. G. "Tree" means any live woody plant rising above the ground with a single stem or trunk of a circumference of forty inches or more for nonindigenous species and eighteen inches or more for indigenous species measured at four and one-half 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, *nonindigenous tree species in residential zones and orchards (including individual fruit trees) are exempted from the definition of tree for the purpose of this chapter*. Trees of any size within the public right-of-way shall constitute a tree for the purposes of this subsection.

Based upon this definition, most of the trees on the project site would qualify for protection under Chapter 12.32 of the City's Municipal Code, and permits would be required for the removal of these trees. The arborist's report recommends removal of some trees with structural or health concerns, and implementation of appropriate remediation as a condition of project approval (Smith Tree Specialists, Inc., 2019).

JURISDICTIONAL WETLANDS AND OTHER WATERS

No potentially jurisdictional aquatic features, including wetlands, ponds, streams or riparian habitat is present within the study area.

SANTA CLARA COUNTY HABITAT AGENCY

The Santa Clara Valley Habitat Plan, administered by the Santa Clara County Habitat Agency[2], provides the cities of Gilroy, Morgan Hill, and San José, the County of Santa Clara, the Santa Clara Valley Transportation Authority, the Santa Clara Valley Water District and the Habitat Agency with permits for project-specific impacts to Habitat Plan species. The County and cities can extend their permits to

[2] http://scv-habitatagency.org/

activities on private property through a standardized and streamlined permitting process. The Plan removes the need to obtain wildlife agency approvals and reduces the number and scope of required biological studies. Fees are used to purchase lands for habitat conservation and carry out other Plan implementation tasks.

The Habitat Plan classifies the land cover of the larger undeveloped parcel as Golf Courses / Urban Parks, which is inaccurate, but consistently applied to small inholdings of formerly agricultural lands surrounded by more recent residential and/or commercial development. The smaller is mapped as parcel as Urban-Suburban (see Figure 5). The present site reconnaissance survey confirmed that the appropriate land cover type for the larger parcel would be Rural Residential.

A review of the project using the Santa Clara Valley Habitat Plan indicates that portion of the project site (APN 726-09-002) is a covered project under the Habitat Plan and would be subject to fees of the Land Cover Fee Zone, specifically Fee Zone B (Agricultural and Valley Floor Land) (see Habitat Plan report, attached). The smaller parcel (APN 726-09-001) is Urban Areas and would not be subject to Land Cover Fees. With the payment of the appropriate fees, the proposed project would not be in conflict with the approved local habitat conservation plan.

The following additional fees, surveys or special habitat overlays are not mapped within the study area and would not apply:

- No Burrowing Owl fee zone
- No wetland fee zone
- No serpentine fee zone
- No required wildlife survey
- No required plant survey
- Not within a stream buffer or setback
- Not within a mapped valley oak and blue oak woodland area
- Not within an Urban Reserve System Interface Zone
- Within the Morgan Hill Urban Service Area and the Limits of Urban Growth

CONCLUSIONS

Because of the site's historic use for agriculture, alteration of natural vegetation by annual disking or mowing, and its rural residential neighborhood setting with a lack of continuity with other non-developed or natural habitats, there are no significant biological constraints to future development of the two parcels.

Preliminary development plans for the two parcels property indicate removal of all trees on the parcels, including several coast live oaks, pine and acacia, which would increase the potential for direct mortalities of special-status or nesting birds, or roosting bats, if present at the time of construction. The project's construction-related activities, including demolition of structures, site preparation, and grading could have potentially significant effects on special-status animal species that could be expected on the project site or using suitable habitat on-site. Implementation of the following measures would reduce these potentially significant effects to less-than-significant levels:

BIO-1: Special-Status Bats. Prior to the removal of mature trees or the demolition or renovation of structures, the measures outlined below should be performed.

a. A pre-construction survey should be conducted by a qualified biologist to identify suitable bat roosting sites.

b. *Any trees or structures determined to support or potentially support maternal roosting sites may only be removed or demolished after coordination with the CDFW and/or the USFWS. Passive exclusion of roosting bats will be required and this may only be performed during the non-breeding season (i.e., between October 1 and March 30).*

c. *Any trees or structures determined to provide suitable bat day or night roosting sites should be identified and marked on site plans. Such roosting sites include snags, rotten stumps, and decadent trees with broken limbs, exfoliating bark, cavities, openings leading to interior portions of any structures. If no suitable roost sites or evidence of bat roosting are identified, impact minimization measures are not warranted. If suitable roosting sites or evidence of bat roosting is identified, the following measures should be conducted:*

   i. *A qualified biologist should survey suitable roost sites immediately prior to the removal or significant pruning of any of the larger trees, or demolition or significant renovation of any structures.*

   ii. *If the project biologist identifies suitable day or night roost sites or evidence of bat occupation, the following steps should be followed to discourage use of the sites by bats and to ensure that any bats present are able to safely relocate.*

For trees:

- *Tree limbs smaller than 7.6 cm (3 in) in diameter should be removed and any loose bark should be peeled away.*
- *Any competing limbs that provide shelter around the potential roost site should be removed to create as open of an area as possible.*
- *The tree should then be alone to allow any bats using the tree/snag to find another roost during their nocturnal activity period.*
- *The project biologist should re-survey the trees a second time 48 hours after trimming.*
- *If no bats are present, work may proceed.*
- *If bats remain on-site, additional measures would be prescribed by the biologist.*

For structures:

- *Depending on the location of potential roost sites and the nature of bat occupation, partial dismantling of a suspect structure may be performed to discourage use by bats. Partial dismantling may consist of the removal of siding, roof sections, and roof gables to permit air flow and exposure to sunlight. This work should be performed under the supervision and direction of a qualified biologist.*
- *The project biologist should re-survey the structures a second time 48 hours after performance of the partial dismantling work.*
- *If no bats are present, work may proceed.*
- *If bats remain on-site, additional measures would be prescribed by the biologist*.

BIO-2: Special-Status Animal Species with Suitable Site Habitat. Prior to site preparation for project construction, including the removal of mature trees, demolition of structures, and grading, the measures outlined below should be performed.

a. *If demolition, site clearing, grading or shrub removal or pruning are to be conducted outside of the breeding season (i.e., September 1 through January 31), no preconstruction surveys for nesting migratory birds is necessary.*

b. *If demolition, site clearing, grading or shrub removal or pruning are to be conducted during the breeding season (i.e., February 1 through August 31), a preconstruction nesting bird survey shall be conducted. The survey shall be performed by a qualified biologist no more than two weeks prior to the initiation of work. If no nesting or breeding activity is observed, work may proceed without restrictions. To the extent allowed by access, all active nests identified within 92 m (300 ft) for raptors and 31 m (100 ft) for passerines shall be mapped.*

c. *For any active nests found near the construction limits (i.e., 92 m [300 ft for raptors and 31 m [100 ft] for passerines) the project biologist shall make a determination as to whether or not construction activities are likely to disrupt reproductive behavior. If it is determined that construction is unlikely to disrupt breeding behavior, construction may proceed. If it is determined that construction may disrupt breeding, the no-construction buffer zone shall be expanded; avoidance is the only mitigation available. The ultimate size of the no-construction buffer zone may be adjusted by the project biologist based on the species involved, topography, lines of site between the work area and the nest, physical barriers, and the ambient level of human activity. If it is determined that construction activities are likely to disrupt raptor breeding, construction activities within the no-construction buffer zone may not proceed until the project biologist determines that the nest is long longer occupied.*

d. *If maintenance of a no-construction buffer zone is not feasible, the project biologist shall monitor the nest(s) to document breeding and rearing behavior of the adult birds. If it is determined that construction activities are likely to cause nest abandonment, work shall cease immediately and the CDFW and/or the USFWS Division of Migratory Bird Management shall be contacted for guidance.*

With the incorporation of the measures outlined above, potential impacts to special-status animals would be reduced to a less-than-significant level pursuant to the guidelines of CEQA.

If you have any questions, please don't hesitate to call me at (415) 254-4835.

Sincerely,

Chris Rogers

Enclosures: References
Figure 1 – Study Area Location
Figure 2 – Limits of Study Area
Figure 3 – Special Status Plants
Figure 4 – Special Status Animals
Figure 5 – Santa Clara Valley Habitat Authority Land Cover
Santa Clara Valley Habitat Plan Report
Representative Photographs
Database print-outs from the CNDDB, CNPS and USFWS

REFERENCES

California Native Plant Society (CNPS). 2019. *Inventory of Rare and Endangered Plants* (online edition, v8-03. 0.39). Query for the Morgan Hill, Lick Observatory, Isabel Valley, Santa Teresa Hills, Loma Prieta, San Jose East, Mt. Sizer, Mt. Madonna, and Gilroy 7.5-minute USGS quadrangles (Santa Clara County). California Native Plant Society, Sacramento, CA. Accessed February 12 at www.rareplants.cnps.org/

California Natural Diversity Database (CNDDB). 2019. Query for the Morgan Hill, Lick Observatory, Isabel Valley, Santa Teresa Hills, Loma Prieta, San Jose East, Mt. Sizer, Mt. Madonna, and Gilroy 7.5-minute USGS quadrangles (Santa Clara County). RareFind 5.0. California Department of Fish and Wildlife, Biogeographic Data Branch. Sacramento, California. Information dated February 12

Geier & Geier Consulting, Inc. 2014. *Diana Avenue – Bagoye, Morgan Hill, California*. Zoning Amendment, Subdivision, Development Agreement, and Environmental Assessment. Prepared for City of Morgan Hill Development Services Center Department. May 2014.

Holland, R. 1986. *Preliminary Descriptions of the Terrestrial Natural Communities of California.* California Department of Fish and Game, The Resources Agency. 156 pp. Available on line at http://www.cal-ipc.org/ip/inventory/pdf/HollandReport.pdf

Quantum Geotechnical, Inc. 2019. *Geotechnical Investigation on Proposed Residential Development, Montecito Estates at Diana venue, Morgan Hill, California.* Prepared For DR Horton. Project No. E052.G. January 29.

Sawyer, J.O., T. Keeler-Wolf, and J.M. Evens. 2009. *A Manual of California Vegetation* (2nd edition). California Native Plant Society, Sacramento. 1300 pp. Available online at http://vegetation.cnps.org/

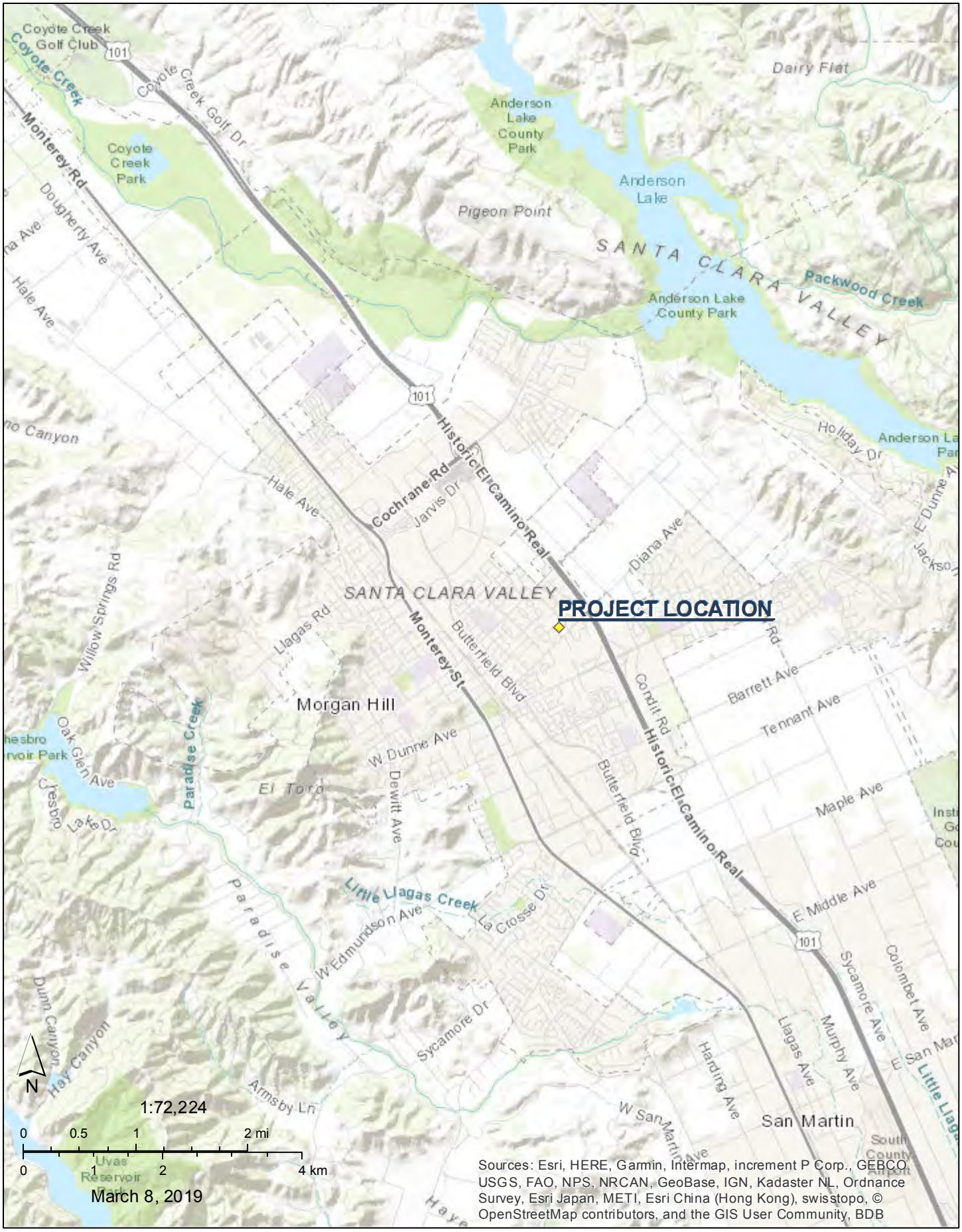
Santa Clara Valley Habitat Authority (SCVHA). 2019. Habitat Agency Geobrowser. Accessed at http://www.hcpmaps.com/habitat/. February 12.

Smith Tree Specialists, Inc. 2019. Arborist Report, Property at: 815 Diana Ave, Morgan Hill. Prepared for Scott Murray, Montecito Estate MH, LLC. January 30.

Tetra Tech, Inc. 2019. *Phase I Environmental Site Assessment Report of Findings, Montecito Estates, Diana Avenue and Lotus Way, Morgan Hill, Riverside County (sic) California 95037*. Report prepared for D.R. Horton, Inc. February 6.

United States Fish and Wildlife Service (USFWS). 2019. *IPaC Trust Resource Report for 815 Diana Avenue, Morgan Hill*. Information for Planning and Conservation. Version 3.0.2. Report generated February 12 at https://ecos.fws.gov/ipac/.

Map of Project Area



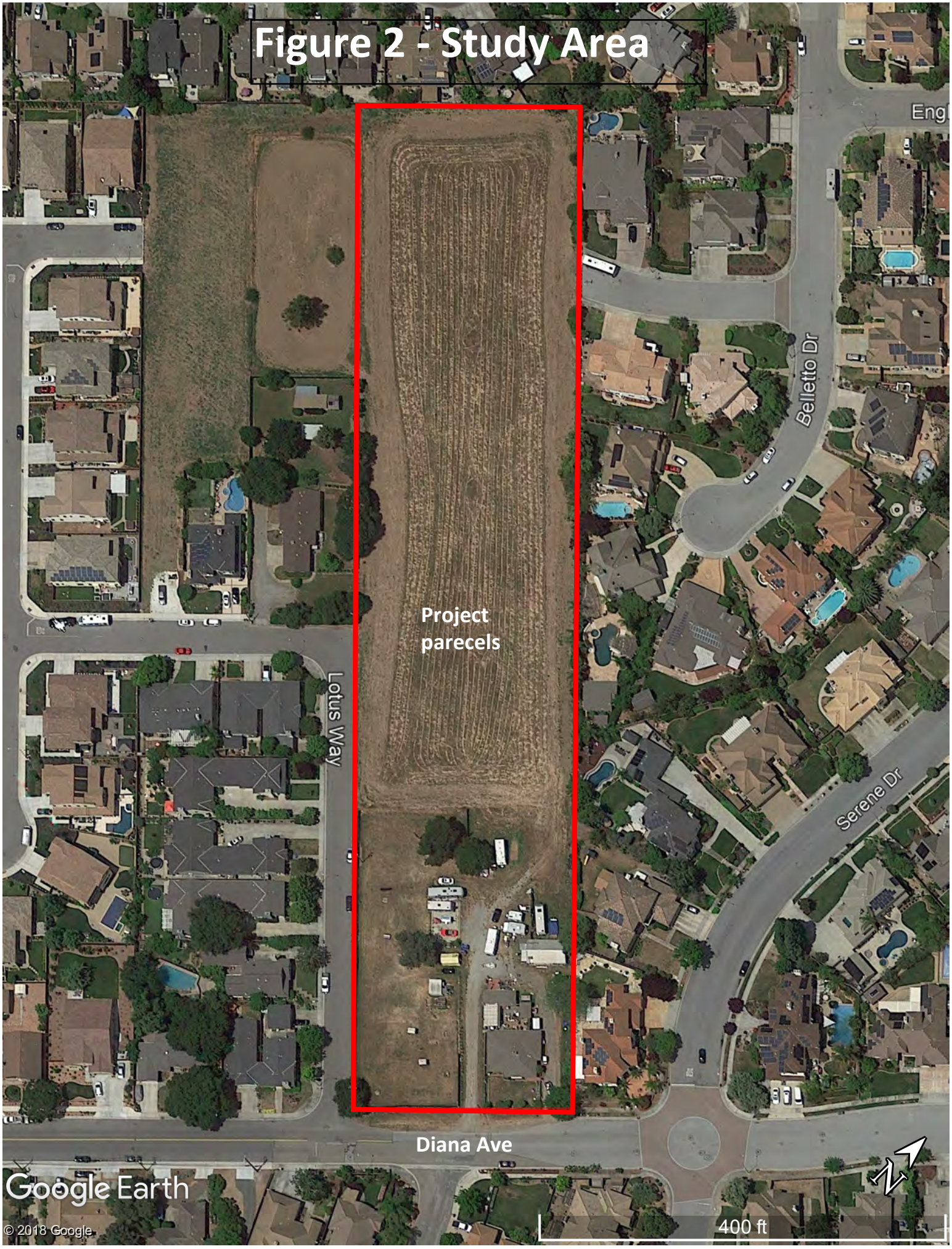


Figure 2 - Study Area
Project parecels
Lotus Way
Belletto Dr
Serene Dr
Diana Ave
Google Earth
© 2018 Google
400 ft

Figure 3 - Special Status Plants and Natural Communities

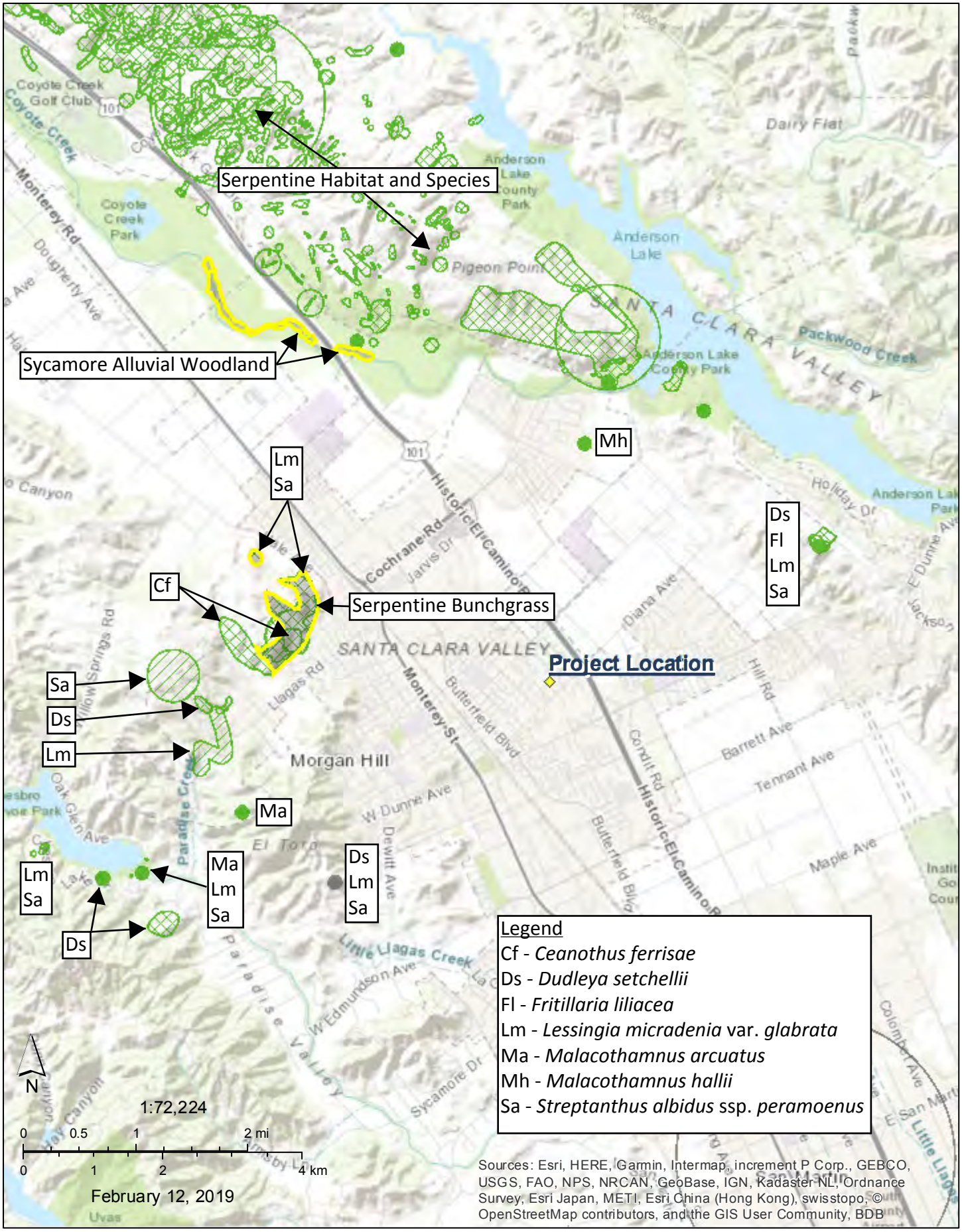


Figure 4 - Special Status Animals

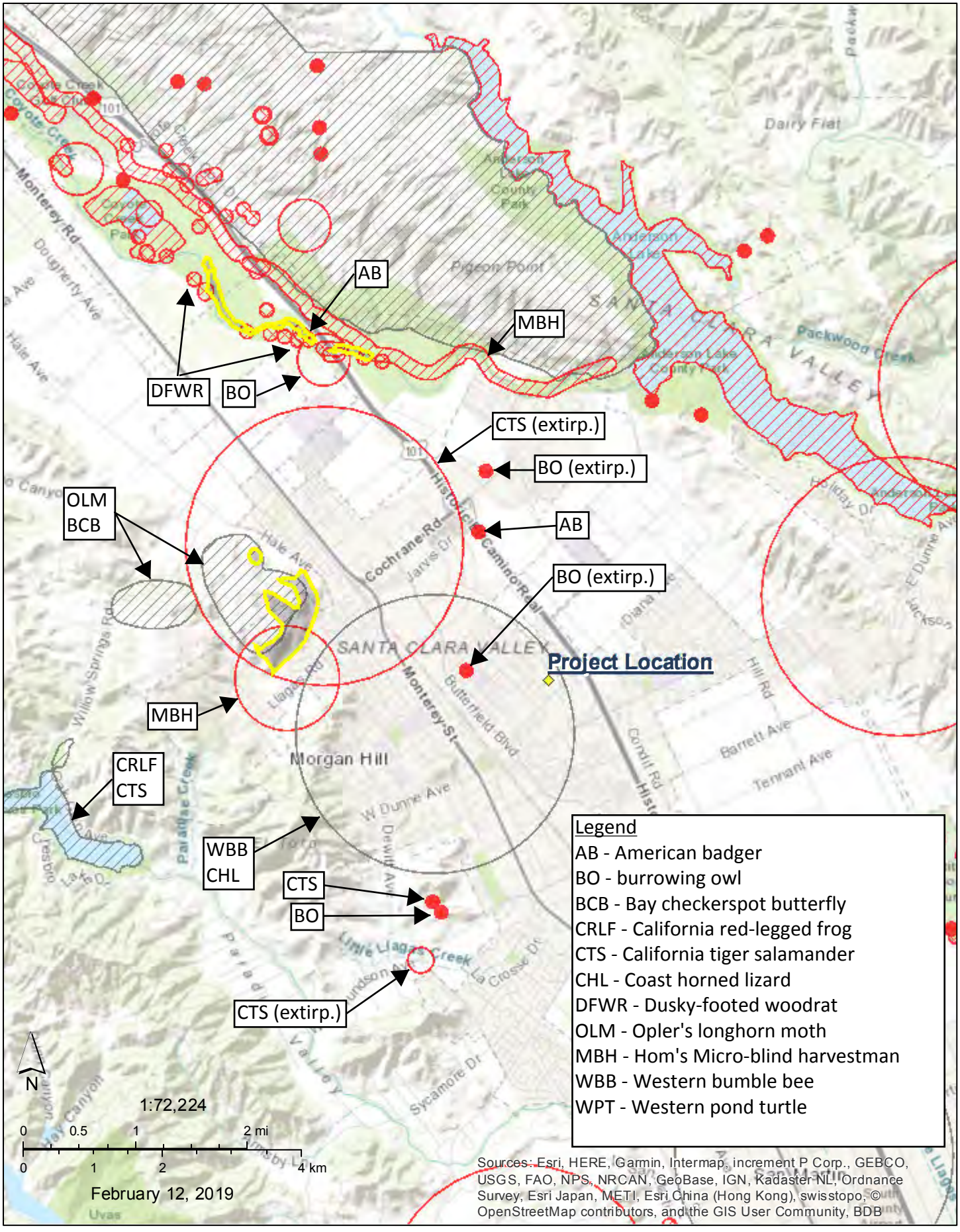
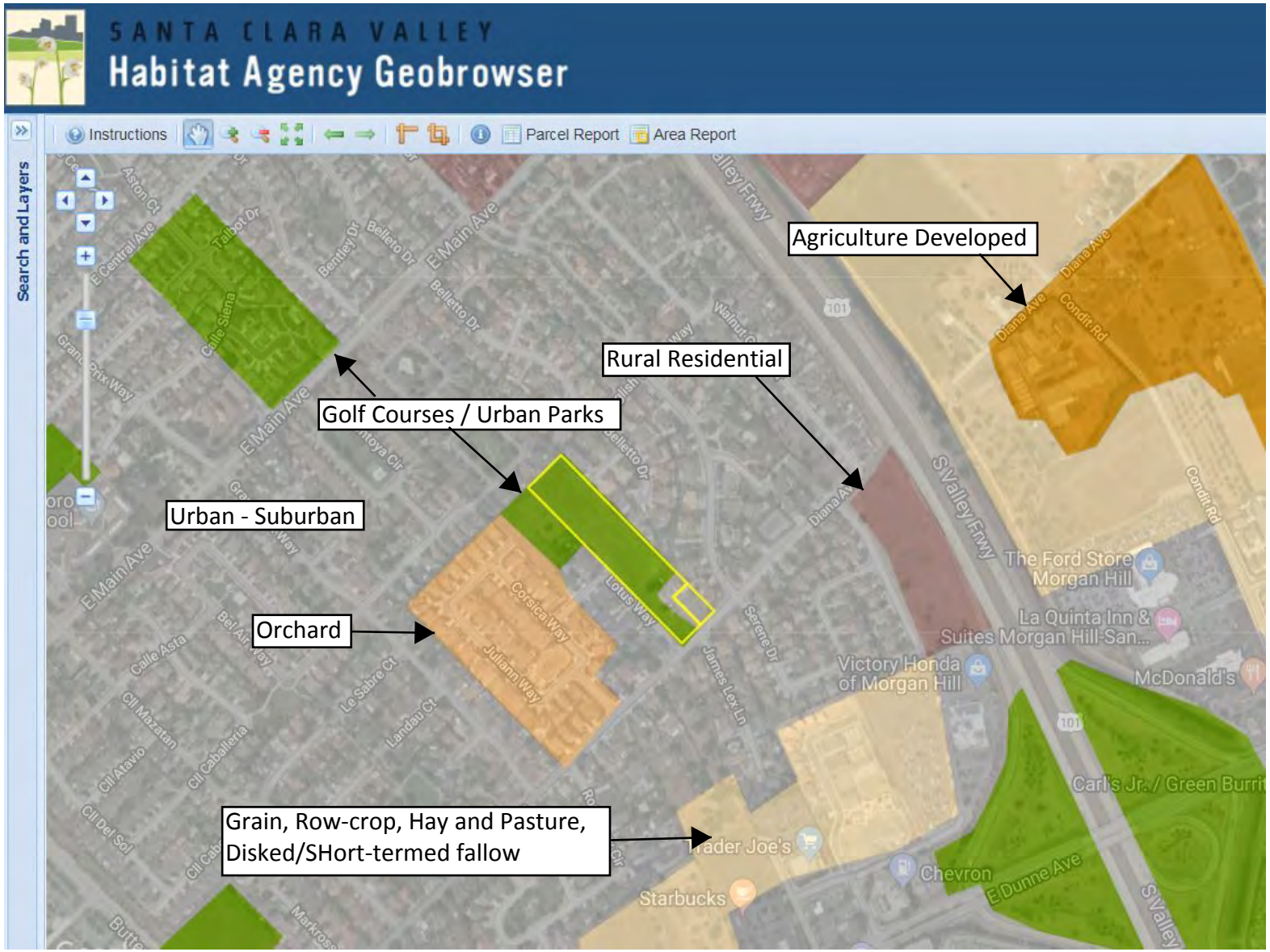


Figure 5 – Land Cover



Santa Clara Valley Habitat Plan Report

SANTA CLARA VALLEY HABITAT AGENCY

City of Gilroy | City of Morgan Hill | City of San José | County of Santa Clara | Santa Clara Valley Water District | Santa Clara Valley Transportation Authority

General Information

APN	72609002
Address	Diana Av Morgan Hill CA 95037
Recorded Area	4.66 acres
City	▪ MORGAN HILL (4.3 acres)
Urban Service Area	▪ Morgan Hill (4.3 acres)
Planning Limits of Urban Growth	▪ Morgan Hill (4.3 acres)

Habitat Plan Information

Habitat Plan Permit Area	YES
Private Development Areas	▪ Area 4: Urban Development Equal to or Greater Than 2 Acres Covered (4.3 acres)
Land Cover	▪ Golf Courses / Urban Parks (3.9 acres) ▪ Urban - Suburban (0.4 acres)
Land Cover Fee Zones	▪ Fee Zone B (Agricultural and Valley Floor Lands) (3.9 acres) ▪ Urban Areas (No Land Cover Fee) (0.4 acres)
Potential Wetland Fee Zones	N/A
Potential Serpentine Fee Zones	N/A
Burrowing Owl Survey and Fee Zone	N/A
Wildlife Survey Areas	N/A
Plant Survey Areas	N/A
Category 1 Streams and Setbacks	N/A
Category 1 Streams and Setbacks (stream length)	N/A
Valley Oak and Blue Oak Woodland	N/A
Urban Reserve System Interface Zones	N/A

The data provided in the Geobrowser are intended to be used as an initial planning tool for project applicants. All fees and survey requirements will be implemented based on field-verified information that is specific to each project.

Representative Photographs

1. Annual grassland, larger parcel, looking north.

2. View east toward smaller parcel and existing residence.

3. Large Bailey acacia on smaller parcel.

4. Drivewaay of exising residence.

CNDDB, CNPS, USFWS Database Printouts

Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Quad IS (Morgan Hill (3712126) OR Santa Teresa Hills (3712127) OR San Jose East (3712137) OR Lick Observatory (3712136) OR Isabel Valley (3712135) OR Mt. Sizer (3712125) OR Gilroy (3712115) OR Mt. Madonna (3712116) OR Loma Prieta (3712117))
 AND Taxonomic Group IS (Ferns OR Gymnosperms OR Monocots OR Dicots OR Lichens OR Bryophytes)

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Amsinckia lunaris bent-flowered fiddleneck	PDBOR01070	None	None	G3	S3	1B.2
Arctostaphylos andersonii Anderson's manzanita	PDERI04030	None	None	G2	S2	1B.2
Balsamorhiza macrolepis big-scale balsamroot	PDAST11061	None	None	G2	S2	1B.2
Calyptridium parryi var. hesseae Santa Cruz Mountains pussypaws	PDPOR09052	None	None	G3G4T2	S2	1B.1
Campanula exigua chaparral harebell	PDCAM020A0	None	None	G2	S2	1B.2
Castilleja affinis var. neglecta Tiburon paintbrush	PDSCR0D013	Endangered	Threatened	G4G5T1T2	S1S2	1B.2
Castilleja rubicundula var. rubicundula pink creamsacs	PDSCR0D482	None	None	G5T2	S2	1B.2
Ceanothus ferrisiae Coyote ceanothus	PDRHA041N0	Endangered	None	G1	S1	1B.1
Centromadia parryi ssp. congdonii Congdon's tarplant	PDAST4R0P1	None	None	G3T1T2	S1S2	1B.1
Chlorogalum pomeridianum var. minus dwarf soaproot	PMLIL0G042	None	None	G5T3	S3	1B.2
Chorizanthe pungens var. pungens Monterey spineflower	PDPGN040M2	Threatened	None	G2T2	S2	1B.2
Chorizanthe robusta var. robusta robust spineflower	PDPGN040Q2	Endangered	None	G2T1	S1	1B.1
Cirsium fontinale var. campylon Mt. Hamilton fountain thistle	PDAST2E163	None	None	G2T2	S2	1B.2
Clarkia concinna ssp. automixa Santa Clara red ribbons	PDONA050A1	None	None	G5?T3	S3	4.3
Collinsia multicolor San Francisco collinsia	PDSCR0H0B0	None	None	G2	S2	1B.2
Delphinium californicum ssp. interius Hospital Canyon larkspur	PDRAN0B0A2	None	None	G3T3	S3	1B.2
Dudleya abramsii ssp. setchellii Santa Clara Valley dudleya	PDCRA040Z0	Endangered	None	G4T2	S2	1B.1
Eriastrum tracyi Tracy's eriastrum	PDPLM030C0	None	Rare	G3Q	S3	3.2

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Eryngium aristulatum var. hooveri Hoover's button-celery	PDAPI0Z043	None	None	G5T1	S1	1B.1
Fritillaria liliacea fragrant fritillary	PMLIL0V0C0	None	None	G2	S2	1B.2
Hoita strobilina Loma Prieta hoita	PDFAB5Z030	None	None	G2?	S2?	1B.1
Lasthenia conjugens Contra Costa goldfields	PDAST5L040	Endangered	None	G1	S1	1B.1
Legenere limosa legenere	PDCAM0C010	None	None	G2	S2	1B.1
Leptosyne hamiltonii Mt. Hamilton coreopsis	PDAST2L0C0	None	None	G2	S2	1B.2
Lessingia micradenia var. glabrata smooth lessingia	PDAST5S062	None	None	G2T2	S2	1B.2
Lomatium observatorium Mt. Hamilton lomatium	PDAPI1B2J0	None	None	G1	S1	1B.2
Malacothamnus arcuatus arcuate bush-mallow	PDMAL0Q0E0	None	None	G2Q	S2	1B.2
Malacothamnus hallii Hall's bush-mallow	PDMAL0Q0F0	None	None	G2	S2	1B.2
Meconella oregana Oregon meconella	PDPAP0G030	None	None	G2G3	S2	1B.1
Monolopia gracilens woodland woollythreads	PDAST6G010	None	None	G3	S3	1B.2
Penstemon rattanii var. kleei Santa Cruz Mountains beardtongue	PDSCR1L5B1	None	None	G4T2	S2	1B.2
Pentachaeta exilis ssp. aeolica San Benito pentachaeta	PDAST6X041	None	None	G5T2	S2	1B.2
Phacelia phacelioides Mt. Diablo phacelia	PDHYD0C3Q0	None	None	G2	S2	1B.2
Plagiobothrys glaber hairless popcornflower	PDBOR0V0B0	None	None	GH	SH	1A
Plagiobothrys verrucosus warty popcornflower	PDBOR0V1D0	None	None	G4G5	S1	2B.1
Sanicula saxatilis rock sanicle	PDAPI1Z0H0	None	Rare	G2	S2	1B.2
Senecio aphanactis chaparral ragwort	PDAST8H060	None	None	G3	S2	2B.2
Streptanthus albidus ssp. albidus Metcalf Canyon jewelflower	PDBRA2G011	Endangered	None	G2T1	S1	1B.1
Streptanthus albidus ssp. peramoenus most beautiful jewelflower	PDBRA2G012	None	None	G2T2	S2	1B.2

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Streptanthus callistus	PDBRA2G0A0	None	None	G1G2	S1S2	1B.3
Mt. Hamilton jewelflower						
Trifolium buckwestiorum	PDFAB402W0	None	None	G2	S2	1B.1
Santa Cruz clover						

Record Count: 41

Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Quad IS (Morgan Hill (3712126) OR Santa Teresa Hills (3712127) OR San Jose East (3712137) OR Lick Observatory (3712136) OR Isabel Valley (3712135) OR Mt. Sizer (3712125) OR Gilroy (3712115) OR Mt. Madonna (3712116) OR Loma Prieta (3712117))
 AND Taxonomic Group IS (Dune OR Scrub OR Herbaceous OR Marsh OR Riparian OR Woodland OR Forest OR Alpine OR Inland Waters OR Marine OR Estuarine OR Riverine OR Palustrine)

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Serpentine Bunchgrass	CTT42130CA	None	None	G2	S2.2	
Serpentine Bunchgrass						
Sycamore Alluvial Woodland	CTT62100CA	None	None	G1	S1.1	
Sycamore Alluvial Woodland						

Record Count: 2

Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Quad IS (Morgan Hill (3712126) OR Santa Teresa Hills (3712127) OR San Jose East (3712137) OR Lick Observatory (3712136) OR Isabel Valley (3712135) OR Mt. Sizer (3712125) OR Gilroy (3712115) OR Mt. Madonna (3712116) OR Loma Prieta (3712117))
 AND Taxonomic Group IS (Fish OR Amphibians OR Reptiles OR Birds OR Mammals OR Mollusks OR Arachnids OR Crustaceans OR Insects)

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Adela oplerella Opler's longhorn moth	IILEE0G040	None	None	G2	S2	
Agelaius tricolor tricolored blackbird	ABPBXB0020	None	Candidate Endangered	G2G3	S1S2	SSC
Ambystoma californiense California tiger salamander	AAAAA01180	Threatened	Threatened	G2G3	S2S3	WL
Ammodramus savannarum grasshopper sparrow	ABPBXA0020	None	None	G5	S3	SSC
Aneides flavipunctatus niger Santa Cruz black salamander	AAAAD01070	None	None	G3	S3	SSC
Anniella pulchra northern California legless lizard	ARACC01020	None	None	G3	S3	SSC
Anodonta californiensis California floater	IMBIV04020	None	None	G3Q	S2?	
Antrozous pallidus pallid bat	AMACC10010	None	None	G5	S3	SSC
Aquila chrysaetos golden eagle	ABNKC22010	None	None	G5	S3	FP
Ardea alba great egret	ABNGA04040	None	None	G5	S4	
Ardea herodias great blue heron	ABNGA04010	None	None	G5	S4	
Arizona elegans occidentalis California glossy snake	ARADB01017	None	None	G5T2	S2	SSC
Athene cunicularia burrowing owl	ABNSB10010	None	None	G4	S3	SSC
Bombus caliginosus obscure bumble bee	IIHYM24380	None	None	G4?	S1S2	
Bombus crotchii Crotch bumble bee	IIHYM24480	None	None	G3G4	S1S2	
Bombus occidentalis western bumble bee	IIHYM24250	None	None	G2G3	S1	
Buteo swainsoni Swainson's hawk	ABNKC19070	None	Threatened	G5	S3	
Corynorhinus townsendii Townsend's big-eared bat	AMACC08010	None	None	G3G4	S2	SSC

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Coturnicops noveboracensis yellow rail	ABNME01010	None	None	G4	S1S2	SSC
Cypseloides niger black swift	ABNUA01010	None	None	G4	S2	SSC
Dicamptodon ensatus California giant salamander	AAAAH01020	None	None	G3	S2S3	SSC
Dipodomys venustus venustus Santa Cruz kangaroo rat	AMAFD03042	None	None	G4T1	S1	
Egretta thula snowy egret	ABNGA06030	None	None	G5	S4	
Elanus leucurus white-tailed kite	ABNKC06010	None	None	G5	S3S4	FP
Emys marmorata western pond turtle	ARAAD02030	None	None	G3G4	S3	SSC
Euphilotes enoptes smithi Smith's blue butterfly	IILEPG2026	Endangered	None	G5T1T2	S1S2	
Euphydryas editha bayensis Bay checkerspot butterfly	IILEPK4055	Threatened	None	G5T1	S1	
Icteria virens yellow-breasted chat	ABPBX24010	None	None	G5	S3	SSC
Lanius ludovicianus loggerhead shrike	ABPBR01030	None	None	G4	S4	SSC
Lasiurus cinereus hoary bat	AMACC05030	None	None	G5	S4	
Lavinia symmetricus subditus Monterey roach	AFCJB19026	None	None	G4T2T3	S2S3	SSC
Microcina homi Hom's micro-blind harvestman	ILARA47020	None	None	G1	S1	
Microcina jungi Jung's micro-blind harvestman	ILARA47030	None	None	G1	S1	
Myotis evotis long-eared myotis	AMACC01070	None	None	G5	S3	
Myotis yumanensis Yuma myotis	AMACC01020	None	None	G5	S4	
Neotoma fuscipes annectens San Francisco dusky-footed woodrat	AMAFF08082	None	None	G5T2T3	S2S3	SSC
Nycticorax nycticorax black-crowned night heron	ABNGA11010	None	None	G5	S4	
Oncorhynchus mykiss irideus pop. 8 steelhead - central California coast DPS	AFCHA0209G	Threatened	None	G5T2T3Q	S2S3	
Oncorhynchus mykiss irideus pop. 9 steelhead - south-central California coast DPS	AFCHA0209H	Threatened	None	G5T2Q	S2	

Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Phrynosoma blainvillii coast horned lizard	ARACF12100	None	None	G3G4	S3S4	SSC
Rana boylii foothill yellow-legged frog	AAABH01050	None	Candidate Threatened	G3	S3	SSC
Rana draytonii California red-legged frog	AAABH01022	Threatened	None	G2G3	S2S3	SSC
Taxidea taxus American badger	AMAJF04010	None	None	G5	S3	SSC
Vireo bellii pusillus least Bell's vireo	ABPBW01114	Endangered	Endangered	G5T2	S2	
Vulpes macrotis mutica San Joaquin kit fox	AMAJA03041	Endangered	Threatened	G4T2	S2	

Record Count: 45

CNPS California Native Plant Society

Plant List

58 matches found. *Click on scientific name for details*

Search Criteria

Found in Quads 3712137, 3712136, 3712135, 3712127, 3712126, 3712125, 3712117 3712116 and 3712115;

Modify Search Criteria | Export to Excel | Modify Columns | Modify Sort | Display Photos

Scientific Name	Common Name	Family	Lifeform	Blooming Period	CA Rare Plant Rank	State Rank	Global Rank
Acanthomintha lanceolata	Santa Clara thorn-mint	Lamiaceae	annual herb	Mar-Jun	4.2	S4	G4
Amsinckia lunaris	bent-flowered fiddleneck	Boraginaceae	annual herb	Mar-Jun	1B.2	S3	G3
Androsace elongata ssp. acuta	California androsace	Primulaceae	annual herb	Mar-Jun	4.2	S3S4	G5?T3T4
Arctostaphylos andersonii	Anderson's manzanita	Ericaceae	perennial evergreen shrub	Nov-May	1B.2	S2	G2
Balsamorhiza macrolepis	big-scale balsamroot	Asteraceae	perennial herb	Mar-Jun	1B.2	S2	G2
Calochortus umbellatus	Oakland star-tulip	Liliaceae	perennial bulbiferous herb	Mar-May	4.2	S3?	G3?
Calyptridium parryi var. hesseae	Santa Cruz Mountains pussypaws	Montiaceae	annual herb	May-Aug	1B.1	S2	G3G4T2
Calystegia collina ssp. venusta	South Coast Range morning-glory	Convolvulaceae	perennial rhizomatous herb	Apr-Jun	4.3	S4	G4T4
Campanula exigua	chaparral harebell	Campanulaceae	annual herb	May-Jun	1B.2	S2	G2
Castilleja affinis var. neglecta	Tiburon paintbrush	Orobanchaceae	perennial herb (hemiparasitic)	Apr-Jun	1B.2	S1S2	G4G5T1T2
Castilleja rubicundula var. rubicundula	pink creamsacs	Orobanchaceae	annual herb (hemiparasitic)	Apr-Jun	1B.2	S2	G5T2
Ceanothus ferrisiae	Coyote ceanothus	Rhamnaceae	perennial evergreen shrub	Jan-May	1B.1	S1	G1
Centromadia parryi ssp. congdonii	Congdon's tarplant	Asteraceae	annual herb	May-Oct(Nov)	1B.1	S1S2	G3T1T2
Chlorogalum pomeridianum var. minus	dwarf soaproot	Agavaceae	perennial bulbiferous herb	May-Aug	1B.2	S3	G5T3
Chorizanthe douglasii	Douglas' spineflower	Polygonaceae	annual herb	Apr-Jul	4.3	S4	G4
Chorizanthe pungens var. pungens	Monterey spineflower	Polygonaceae	annual herb	Apr-Jun(Jul-Aug)	1B.2	S2	G2T2
Cirsium fontinale var. campylon	Mt. Hamilton fountain thistle	Asteraceae	perennial herb	(Feb)Apr-Oct	1B.2	S2	G2T2
Clarkia breweri	Brewer's clarkia	Onagraceae	annual herb	Apr-Jun	4.2	S4	G4

Clarkia concinna ssp. automixa	Santa Clara red ribbons	Onagraceae	annual herb	(Apr)May-Jun(Jul)	4.3	S3	G5?T3
Collinsia multicolor	San Francisco collinsia	Plantaginaceae	annual herb	(Feb)Mar-May	1B.2	S2	G2
Cryptantha rattanii	Rattan's cryptantha	Boraginaceae	annual herb	Apr-Jul	4.3	S4	G4
Cypripedium fasciculatum	clustered lady's-slipper	Orchidaceae	perennial rhizomatous herb	Mar-Aug	4.2	S4	G4
Delphinium californicum ssp. interius	Hospital Canyon larkspur	Ranunculaceae	perennial herb	Apr-Jun	1B.2	S3	G3T3
Dudleya abramsii ssp. setchellii	Santa Clara Valley dudleya	Crassulaceae	perennial herb	Apr-Oct	1B.1	S2	G4T2
Elymus californicus	California bottle-brush grass	Poaceae	perennial herb	May-Aug(Nov)	4.3	S4	G4
Eriastrum tracyi	Tracy's eriastrum	Polemoniaceae	annual herb	May-Jul	3.2	S3	G3Q
Eryngium aristulatum var. hooveri	Hoover's button-celery	Apiaceae	annual / perennial herb	(Jun)Jul(Aug)	1B.1	S1	G5T1
Fritillaria liliacea	fragrant fritillary	Liliaceae	perennial bulbiferous herb	Feb-Apr	1B.2	S2	G2
Galium andrewsii ssp. gatense	phlox-leaf serpentine bedstraw	Rubiaceae	perennial herb	Apr-Jul	4.2	S3	G5T3
Hoita strobilina	Loma Prieta hoita	Fabaceae	perennial herb	May-Jul(Aug-Oct)	1B.1	S2?	G2?
Iris longipetala	coast iris	Iridaceae	perennial rhizomatous herb	Mar-May	4.2	S3	G3
Lasthenia conjugens	Contra Costa goldfields	Asteraceae	annual herb	Mar-Jun	1B.1	S1	G1
Legenere limosa	legenere	Campanulaceae	annual herb	Apr-Jun	1B.1	S2	G2
Leptosiphon acicularis	bristly leptosiphon	Polemoniaceae	annual herb	Apr-Jul	4.2	S4?	G4?
Leptosiphon ambiguus	serpentine leptosiphon	Polemoniaceae	annual herb	Mar-Jun	4.2	S4	G4
Leptosiphon grandiflorus	large-flowered leptosiphon	Polemoniaceae	annual herb	Apr-Aug	4.2	S3S4	G3G4
Leptosyne hamiltonii	Mt. Hamilton coreopsis	Asteraceae	annual herb	Mar-May	1B.2	S2	G2
Lessingia hololeuca	woolly-headed lessingia	Asteraceae	annual herb	Jun-Oct	3	S3?	G3?
Lessingia micradenia var. glabrata	smooth lessingia	Asteraceae	annual herb	(Apr-Jun)Jul-Nov	1B.2	S2	G2T2
Lessingia tenuis	spring lessingia	Asteraceae	annual herb	May-Jul	4.3	S4	G4
Lomatium observatorium	Mt. Hamilton lomatium	Apiaceae	perennial herb	Mar-May	1B.2	S1	G1
Malacothamnus arcuatus	arcuate bush-mallow	Malvaceae	perennial evergreen shrub	Apr-Sep	1B.2	S2	G2Q
Malacothamnus hallii	Hall's bush-mallow	Malvaceae	perennial evergreen shrub	(Apr)May-Sep(Oct)	1B.2	S2	G2
Meconella oregana	Oregon meconella	Papaveraceae	annual herb	Mar-Apr	1B.1	S2	G2G3
Micropus amphibolus	Mt. Diablo cottonweed	Asteraceae	annual herb	Mar-May	3.2	S3S4	G3G4
Monolopia gracilens	woodland woolythreads	Asteraceae	annual herb	(Feb)Mar-Jul	1B.2	S3	G3
	Santa Cruz Mountains	Plantaginaceae	perennial herb	May-Jun	1B.2	S2	G4T2

Penstemon rattanii var. kleei	beardtongue						
Pentachaeta exilis ssp. aeolica	San Benito pentachaeta	Asteraceae	annual herb	Mar-May	1B.2	S2	G5T2
Phacelia phacelioides	Mt. Diablo phacelia	Hydrophyllaceae	annual herb	Apr-May	1B.2	S2	G2
Plagiobothrys glaber	hairless popcornflower	Boraginaceae	annual herb	Mar-May	1A	SH	GH
Plagiobothrys verrucosus	warty popcornflower	Boraginaceae	annual herb	Apr-May	2B.1	S1	G4G5
Sanicula saxatilis	rock sanicle	Apiaceae	perennial herb	Apr-May	1B.2	S2	G2
Senecio aphanactis	chaparral ragwort	Asteraceae	annual herb	Jan-Apr(May)	2B.2	S2	G3
Streptanthus albidus ssp. albidus	Metcalf Canyon jewelflower	Brassicaceae	annual herb	Apr-Jul	1B.1	S1	G2T1
Streptanthus albidus ssp. peramoenus	most beautiful jewelflower	Brassicaceae	annual herb	(Mar)Apr-Sep(Oct)	1B.2	S2	G2T2
Streptanthus callistus	Mt. Hamilton jewelflower	Brassicaceae	annual herb	Apr-May	1B.3	S1S2	G1G2
Trifolium amoenum	two-fork clover	Fabaceae	annual herb	Apr-Jun	1B.1	S1	G1
Trifolium buckwestiorum	Santa Cruz clover	Fabaceae	annual herb	Apr-Oct	1B.1	S2	G2

Suggested Citation

California Native Plant Society, Rare Plant Program. 2019. Inventory of Rare and Endangered Plants of California (online edition, v8-03 0.39). Website http://www.rareplants.cnps.org [accessed 08 March 2019].

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IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

Santa Clara County, California

Local office

Sacramento Fish And Wildlife Office

(916) 414-6600
(916) 414-6713

Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population, even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species[1] and their critical habitats are managed by the Ecological Services Program of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries[2]).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact NOAA Fisheries for species under their jurisdiction.

1. Species listed under the Endangered Species Act are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the listing status page for more information.
2. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Mammals

NAME	STATUS

San Joaquin Kit Fox Vulpes macrotis mutica No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/2873	Endangered

Birds

NAME	STATUS
California Least Tern Sterna antillarum browni No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/8104	Endangered

Amphibians

NAME	STATUS
California Red-legged Frog Rana draytonii There is **final** critical habitat for this species. Your location is outside the critical habitat. https://ecos.fws.gov/ecp/species/2891	Threatened
California Tiger Salamander Ambystoma californiense There is **final** critical habitat for this species. Your location is outside the critical habitat. https://ecos.fws.gov/ecp/species/2076	Threatened

Fishes

NAME	STATUS
Delta Smelt Hypomesus transpacificus There is **final** critical habitat for this species. Your location is outside the critical habitat. https://ecos.fws.gov/ecp/species/321	Threatened

Insects

NAME	STATUS
Bay Checkerspot Butterfly Euphydryas editha bayensis There is **final** critical habitat for this species. Your location is outside the critical habitat. https://ecos.fws.gov/ecp/species/2320	Threatened

Flowering Plants

NAME	STATUS

Coyote Ceanothus Ceanothus ferrisae — Endangered
No critical habitat has been designated for this species.
https://ecos.fws.gov/ecp/species/8440

Metcalf Canyon Jewelflower Streptanthus albidus ssp. albidus — Endangered
No critical habitat has been designated for this species.
https://ecos.fws.gov/ecp/species/4186

Santa Clara Valley Dudleya Dudleya setchellii — Endangered
No critical habitat has been designated for this species.
https://ecos.fws.gov/ecp/species/3207

Tiburon Paintbrush Castilleja affinis ssp. neglecta — Endangered
No critical habitat has been designated for this species.
https://ecos.fws.gov/ecp/species/2687

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

THERE ARE NO CRITICAL HABITATS AT THIS LOCATION.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php
- Measures for avoiding and minimizing impacts to birds http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php
- Nationwide conservation measures for birds http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf

The birds listed below are birds of particular concern either because they occur on the USFWS Birds of Conservation Concern (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ below. This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the E-bird data mapping tool (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found below.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON (IF A BREEDING SEASON IS INDICATED FOR A BIRD ON YOUR LIST, THE BIRD MAY BREED IN YOUR PROJECT AREA SOMETIME WITHIN THE TIMEFRAME SPECIFIED, WHICH IS A VERY LIBERAL ESTIMATE OF THE DATES INSIDE WHICH THE BIRD BREEDS ACROSS ITS ENTIRE RANGE. "BREEDS ELSEWHERE" INDICATES THAT THE BIRD DOES NOT LIKELY BREED IN YOUR PROJECT AREA.)
Bald Eagle *Haliaeetus leucocephalus* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Jan 1 to Aug 31
Black-chinned Sparrow *Spizella atrogularis* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9447	Breeds Apr 15 to Jul 31
Clark's Grebe *Aechmophorus clarkii* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Jan 1 to Dec 31

Golden Eagle Aquila chrysaetos This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1680	Breeds Jan 1 to Aug 31
Lawrence's Goldfinch Carduelis lawrencei This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9464	Breeds Mar 20 to Sep 20
Nuttall's Woodpecker Picoides nuttallii This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9410	Breeds Apr 1 to Jul 20
Oak Titmouse Baeolophus inornatus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9656	Breeds Mar 15 to Jul 15
Song Sparrow Melospiza melodia This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds Feb 20 to Sep 5
Spotted Towhee Pipilo maculatus clementae This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/4243	Breeds Apr 15 to Jul 20
Wrentit Chamaea fasciata This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Mar 15 to Aug 10
Yellow-billed Magpie Pica nuttalli This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9726	Breeds Apr 1 to Jul 31

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (■)
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

To see a bar's survey effort range, simply hover your mouse cursor over the bar.

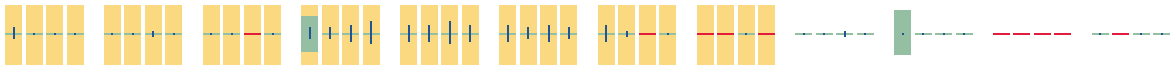
No Data (–)
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.

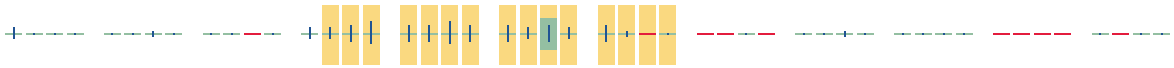
■ probability of presence ■ breeding season | survey effort – no data

SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC

Bald Eagle
Non-BCC Vulnerable (This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.)



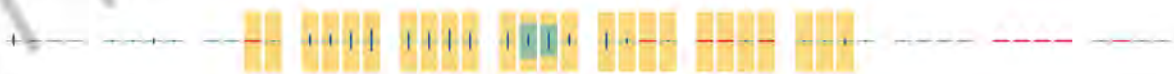
Black-chinned Sparrow
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)



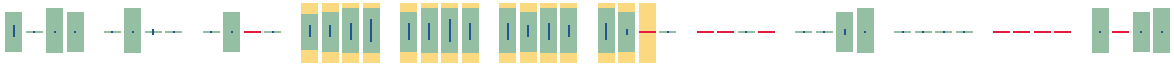
Clark's Grebe
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

Golden Eagle
Non-BCC Vulnerable (This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.)

Lawrence's Goldfinch
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)



Nuttall's Woodpecker
BCC - BCR (This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA)



Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

Nationwide Conservation Measures describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. Additional measures and/or permits may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the migratory birds potentially occurring in my specified location?

The Migratory Bird Resource List is comprised of USFWS Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project

intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the E-bird Explore Data Tool.

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the Avian Knowledge Network (AKN). This data is derived from a growing collection of survey, banding, and citizen science datasets .

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: The Cornell Lab of Ornithology All About Birds Bird Guide, or (if you are unsuccessful in locating the bird of interest there), the Cornell Lab of Ornithology Neotropical Birds guide. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are Birds of Conservation Concern (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the Eagle Act requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the Northeast Ocean Data Portal. The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the Diving Bird Study and the nanotag studies or contact Caleb Spiegel or Pam Loring.

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the National Wildlife Refuge system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS AT THIS LOCATION.

Fish hatcheries

THERE ARE NO FISH HATCHERIES AT THIS LOCATION.

Wetlands in the National Wetlands Inventory

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

WETLAND INFORMATION IS NOT AVAILABLE AT THIS TIME

This can happen when the National Wetlands Inventory (NWI) map service is unavailable, or for very large projects that intersect many wetland areas. Try again, or visit the NWI map to view wetlands at this location.

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tuberficid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

ATTACHMENT 2

TREE REPORT FOR
815 DIANA AVENUE, MORGAN HILL
APN #726-09-001 & 726-09-002

BY
SMITH TREE SPECIALISTS, INC.
JANUARY 30, 2019

Smith Tree Specialists, Inc
Fully Licensed, Insured and Certified

License #678321 ~ Arborist #WE-6620A ~ Insured PL/PD ~ Workers Compensation ~ 408-722-8942 ~ arborist@garlic.com ~ moki@smiththreespecialists.com

Scott Murray
Montecito Estates MH, LLC
175 E Main Ave
Morgan Hill, CA 95037
408-406-6000 / 408--201-0100
smurray@interorealestate.com

January 30, 2019

Property at: 815 Diana Ave, Morgan Hill
APN #726-09-001 & 726-09-002

As per your request we visited the property shown above in order to make observations as needed and recommendations regarding trees on the site.

Many of the trees under consideration are located on the adjacent properties but may be impacted by development and should have protection measures implemented in order to preserve their health and viability.

The trees being recommended for removal are in a state of decline and/or are necessary to be removed to perform property development.

All trees recommended to be retained should have all construction site tree preservation measures implemented, page 12 of this report, including pruning to remove deadwood, structural correction and aeration and fertilization to encourage health, vigor and discourage stress from disruption.

The recommendations in this report are based on visual inspection on the above- ground parts of the tree at the time of the site visit. No soil was removed for below-grade inspection and no aerial inspection was performed. Indigenous trees under 6" diameter at 48" above grade are not considered "Ordinance Sized Trees" according to the City of Morgan Hill Tree Protection Code and can be removed to facilitate construction or can be incorporated into landscape design plans.

Data collected per individual tree for the inventory are as follows: tag number marked on map corresponding to property location, scientific name, common name, diameter at forty-eight inches (48") above grade, condition and any observational notes as needed.
NOTE: Tree Tags 12055 to 12057 were not used.

Please feel free to request any additional information or clarification.

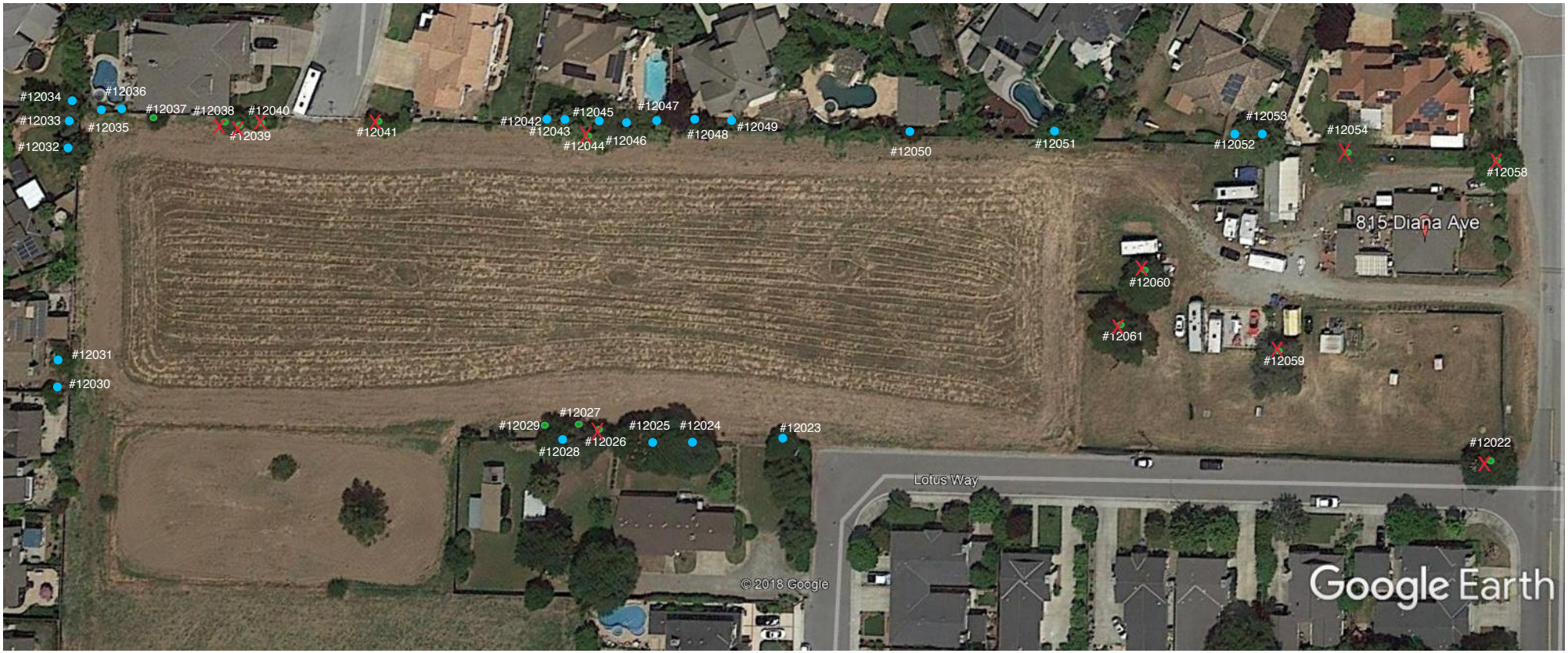
Respectfully submitted,

Moki Smith

Moki Smith
Smith Tree Specialists, Inc
Arborist #WE-6620

Scott Murray
Montecito Estates MH, LLC
815 Diana Ave, Morgan Hill
APN #726-09-001 & 726-09-002

January 30, 2019



On - Site Tree
Off - Site Tree

12022.	Common Name	Species	D.B.H.	Height	Canopy Spread	Condition
	Coast live oak	*Quercus agrifolia*	16"	18'	32'	Good

Observations:
This tree is slated for removal.

Recommendations:
Remove and mitigate by planting one 24" box sized Live oak tree.

12023.	Common Name	Species	D.B.H.	Height	Canopy Spread	Condition
	Coast live oak	*Quercus agrifolia*	17"	16'	18'	Good

Observations:
This tree is located on neighboring property.

Recommendations:
Preserve and implement all normal construction site tree preservation measures including installation of protective fencing to avoid damage during construction.

12024.	Common Name	Species	D.B.H.	Height	Canopy Spread	Condition
	Coast live oak	*Quercus agrifolia*	32"	27'	40'	Fair

Observations:
This tree is located on neighboring property.

Recommendations:
Preserve and implement all normal construction site tree preservation measures including installation of protective fencing to avoid damage during construction.

12025.	Common Name	Species	D.B.H.	Height	Canopy Spread	Condition
	Coast live oak	*Quercus agrifolia*	29"	24'	25'	Fair

Observations:
This tree is located on neighboring property.

Recommendations:
Preserve and implement all normal construction site tree preservation measures including installation of protective fencing to avoid damage during construction.

12026.	Common Name	Species	D.B.H.	Height	Canopy Spread	Condition
	Coast live oak	*Quercus agrifolia*	5"	16'	8'	Fair

Observations:
This tree is not an Ordinance Sized tree / protected tree, according to the City of Morgan Hill tree preservation specifications.

Recommendations:
Remove to facilitate construction.

12027.	Common Name	Species	D.B.H.	Height	Canopy Spread	Condition
	Coast live oak	*Quercus agrifolia*	9.5"	16'	14'	Fair

Observations:
This tree is an Ordinance Sized tree / protected tree, according to the City of Morgan Hill tree preservation specifications and should be preserved or removal should be mitigated.

Recommendations:
Preserve and implement all normal construction site tree preservation measures including installation of protective fencing to avoid damage during construction.
Remove and mitigate by planting three 15 gallon sized trees of indigenous species.

12028.	Common Name	Species	D.B.H.	Height	Canopy Spread	Condition
	Stone pine	*Pinus pinea*	24"	24'	16'	Fair

Observations:
This tree is located on neighboring property.
The tree has a multi leader mainstem with 2 main uprights.

Recommendations:
Preserve and implement all normal construction site tree preservation measures including installation of protective fencing to avoid damage during construction.
Stone pine trees are prone to uprooting failure; therefore, no construction should occur within the drip line of this tree and main lateral roots should be carefully pruned by hand and treated with fungicide.

12029.	Common Name	Species	D.B.H.	Height	Canopy Spread	Condition
	Coast live oak	*Quercus agrifolia*	13"	23'	26'	Fair

Observations:
This tree should be retained due to size.

Recommendations:
Preserve and implement all normal construction site tree preservation measures including installation of protective fencing to avoid damage during construction.

12030.	Common Name	Species	D.B.H.	Height	Canopy Spread	Condition
	Plum	*Prunus sp.*	12"	15'	16'	Poor

Observations:
This tree is located on neighboring property.
There is large deadwood visible within the canopy.

Recommendations:
Preserve and implement all normal construction site tree preservation measures including installation of protective fencing to avoid damage during construction.
Prune away large deadwood from portion of the tree located over development site to avoid structural failure hazard.

12031.	Common Name	Species	D.B.H.	Height	Canopy Spread	Condition
	Locust	*Robinia sp.*	6"	20'	14'	Good

Observations:
This tree is located on neighboring property.

Recommendations:
Preserve and implement all normal construction site tree preservation measures including installation of protective fencing to avoid damage during construction.

12032.	Common Name	Species	D.B.H.	Height	Canopy Spread	Condition
	Coast redwood	*Sequoia sempervirens*	24"	35'	24'	Good

Observations:
This tree is located on neighboring property.

Recommendations:
Preserve and implement all normal construction site tree preservation measures including installation of protective fencing to avoid damage during construction.

12033.	Common Name	Species	D.B.H.	Height	Canopy Spread	Condition
	Giant redwood	*Sequoiaendron giganteum*	12"	25'	9'	Good

Observations:
This tree is located on neighboring property.

Recommendations:
Preserve and implement all normal construction site tree preservation measures including installation of protective fencing to avoid damage during construction.

12034. Common Name	Species	D.B.H.	Height	Canopy Spread	Condition
Queen palm	*Syagrus romanzoffiana*	12"	25'	10'	Good

Observations:
This tree is located on neighboring property.

Recommendations:
Preserve and implement all normal construction site tree preservation measures including installation of protective fencing to avoid damage during construction.

12035. Common Name	Species	D.B.H.	Height	Canopy Spread	Condition
Queen palm	*Syagrus romanzoffiana*	12"	12'	6'	Good

Observations:
This tree is located on neighboring property.

Recommendations:
Preserve and implement all normal construction site tree preservation measures including installation of protective fencing to avoid damage during construction.

12036. Common Name	Species	D.B.H.	Height	Canopy Spread	Condition
Queen palm	*Syagrus romanzoffiana*	12"	15'	8'	Good

Observations:
This tree is located on neighboring property.

Recommendations:
Preserve and implement all normal construction site tree preservation measures including installation of protective fencing to avoid damage during construction.

12037. Common Name	Species	D.B.H.	Height	Canopy Spread	Condition
Coast live oak	*Quercus agrifolia*	7"	15'	15'	Good

Observations:
This tree is an Ordinance Sized tree / protected tree, according to the City of Morgan Hill tree preservation specifications and should be preserved or removal should be mitigated.

Recommendations:
Preserve and implement all normal construction site tree preservation measures including installation of protective fencing to avoid damage during construction.
Remove and mitigate by planting three 15 gallon sized trees of indigenous species.

12038.	Common Name	Species	D.B.H.	Height	Canopy Spread	Condition
	Privet	*Ligustrum sp.*	24"	23'	15'	Poor

Observations:
This tree is in poor condition and not a protected species.

Recommendations:
Remove

12039.	Common Name	Species	D.B.H.	Height	Canopy Spread	Condition
	Privet	*Ligustrum sp.*	8"	20'	12'	Poor

Observations:
This tree is in poor condition and not a protected species.

Recommendations:
Remove

12040.	Common Name	Species	D.B.H.	Height	Canopy Spread	Condition
	Privet	*Ligustrum sp.*	6"	10'	6'	Poor

Observations:
This tree is in poor condition and not a protected species.

Recommendations:
Remove

12041.	Common Name	Species	D.B.H.	Height	Canopy Spread	Condition
	Privet	*Ligustrum sp.*	2-6"	15'	20'	Poor

Observations:
This is a stand of volunteer epicormic shoot growth.
This tree is in poor condition and not a protected species.

Recommendations:
Remove

12042.	Common Name	Species	D.B.H.	Height	Canopy Spread	Condition
	Camphor	*Cinnamomum camphora*	24"	35'	25'	Good

Observations:
This tree is located on neighboring property.

Recommendations:
Preserve and implement all normal construction site tree preservation measures including installation of protective fencing to avoid damage during construction.

12043.	Common Name	Species	D.B.H.	Height	Canopy Spread	Condition
	Camphor	*Cinnamomum camphora*	24"	35'	25'	Good

Observations:
This tree is located on neighboring property.

Recommendations:
Preserve and implement all normal construction site tree preservation measures including installation of protective fencing to avoid damage during construction.

12044.	Common Name	Species	D.B.H.	Height	Canopy Spread	Condition
	Locust	*Robinia sp.*	3"	10'	6'	Good

Observations:
This tree is not an Ordinance Sized tree / protected tree, according to the City of Morgan Hill tree preservation specifications.

Recommendations:
Remove to facilitate construction.

12045.	Common Name	Species	D.B.H.	Height	Canopy Spread	Condition
	Locust	*Robinia sp.*	14"	30'	10'	Fair

Observations:
This tree is located on neighboring property.

Recommendations:
Preserve and implement all normal construction site tree preservation measures including installation of protective fencing to avoid damage during construction.

12046.	Common Name	Species	D.B.H.	Height	Canopy Spread	Condition
	Bradford pear	*Pyrus calleryana*	14"	30'	15'	Good

Observations:
This tree is located on neighboring property.

Recommendations:
Preserve and implement all normal construction site tree preservation measures including installation of protective fencing to avoid damage during construction.

12047.	Common Name	Species	D.B.H.	Height	Canopy Spread	Condition
	Camphor	*Cinnamomum camphora*	12"	35'	8'	Good

Observations:
This tree is located on neighboring property.

Recommendations:
Preserve and implement all normal construction site tree preservation measures including installation of protective fencing to avoid damage during construction.

12048.	Common Name	Species	D.B.H.	Height	Canopy Spread	Condition
	Plum	*Prunus sp.*	12"	25'	8'	Good

Observations:
This tree is located on neighboring property.

Recommendations:
Preserve and implement all normal construction site tree preservation measures including installation of protective fencing to avoid damage during construction.

12049.	Common Name	Species	D.B.H.	Height	Canopy Spread	Condition
	Magnolia	*Magnolia grandiflora*	8"	22'	7'	Good

Observations:
This tree is located on neighboring property.

Recommendations:
Preserve and implement all normal construction site tree preservation measures including installation of protective fencing to avoid damage during construction.

12050.	Common Name	Species	D.B.H.	Height	Canopy Spread	Condition
	Plum	*Prunus sp.*	12"	20'	8'	Good

Observations:
This tree is located on neighboring property.

Recommendations:
Preserve and implement all normal construction site tree preservation measures including installation of protective fencing to avoid damage during construction.

12051. Common Name	Species	D.B.H.	Height	Canopy Spread	Condition
Bradford pear	*Pyrus calleryana*	12"	25'	11'	Good

Observations:
This tree is located on neighboring property.

Recommendations:
Preserve and implement all normal construction site tree preservation measures including installation of protective fencing to avoid damage during construction.

12052. Common Name	Species	D.B.H.	Height	Canopy Spread	Condition
Sycamore	*Platanus occidentalis*	14"	25'	16'	Good

Observations:
This tree is located on neighboring property.

Recommendations:
Preserve and implement all normal construction site tree preservation measures including installation of protective fencing to avoid damage during construction.

12053. Common Name	Species	D.B.H.	Height	Canopy Spread	Condition
Sycamore	*Platanus occidentalis*	14"	25'	20'	Good

Observations:
This tree is located on neighboring property.

Recommendations:
Preserve and implement all normal construction site tree preservation measures including installation of protective fencing to avoid damage during construction.

12054. Common Name	Species	D.B.H.	Height	Canopy Spread	Condition
Mimosa	*Albizia julibrissin*	26"	35'	30'	Fair

Observations:
This tree is an Ordinance Sized tree / protected tree, according to the City of Morgan Hill tree preservation specifications, however, it is not indigenous and can be removed and mitigated.

Recommendations:
Remove and mitigate by planting three, 15 gallon sized trees of indigenous species.

Tree Tags #12055 to 12057 were not used.

12058. Common Name	Species	D.B.H.	Height	Canopy Spread	Condition
Fruitless mulberry	*Morus alba*	17"	25'	20'	Poor

Observations:
This tree has poor structure.

Recommendations:
Remove.

12059. Common Name	Species	D.B.H.	Height	Canopy Spread	Condition
Bailey acacia	*Acacia baileyana*	24"	35'	30'	Poor

Observations:
This tree is slated for removal.

Recommendations:
Remove and mitigate by planting three, 15-gallon sized trees of indigenous species.

12060. Common Name	Species	D.B.H.	Height	Canopy Spread	Condition
Coast live oak	*Quercus agrifolia*	24"	30'	25'	Good

Observations:
This tree is slated for removal.

Recommendations:
Remove and mitigate by planting one 24" box sized Live oak tree.

12061. Common Name	Species	D.B.H.	Height	Canopy Spread	Condition
Monterey pine	*Pinus radiata*	24"	30'	25'	Fair

Observations:
Monterey pine trees are not desirable trees for our climate and are susceptible to Pine pitch canker and Ips beetle infestation.
This tree is showing signs of stress within the canopy.

Recommendations:
Remove.

Construction Site - Tree Preservation

• Locate structures, grade changes, etc. as far as feasible from the `dripline' area of the tree.

• Avoid root damage through grading, trenching, compaction, etc., at least within an area 1.5 times the `dripline' area of trees. Where root damage cannot be avoided, roots encountered (over 1" diameter) should be exposed approximately 12" beyond the area to be disturbed (towards tree stem), by hand excavation, or with specialized hydraulic or pneumatic
equipment, cut cleanly with hand pruners or power saw, and immediately back-filled with soil. Avoid tearing, or otherwise disturbing that portion of the root(s) to remain.

• Construct a temporary fence as far from the tree stem (trunk) as possible, completely surrounding the tree, and 6-8 feet in height. Post no parking or storage signs outside / on fencing. Do not attach posting to the mainstem of the tree.

• Do not allow vehicles, equipment, pedestrian traffic; building materials or debris storage; or disposal of toxic or other materials inside of the fenced off area.

• Avoid pruning immediately before, during, or immediately after construction impact. Perform only that pruning which is unavoidable due to conflicts with proposed development. Aesthetic pruning should not be performed for at least 1-2 years following completion of construction.

• Trees that will be impacted by construction may benefit from fertilization, ideally performed in the fall, and preferably prior to any construction activities, with not more than 6 lbs. of actual nitrogen per 1,000 square feet of accessible `drip line' area or beyond.
• Mulch `rooting' area with an acidic, organic compost or mulch.

• Arrange for periodic (Biannual/Quarterly) inspection of tree's condition, and treatment of damaging conditions (insects, diseases, nutrient deficiencies, etc.) as they occur, or as appropriate.

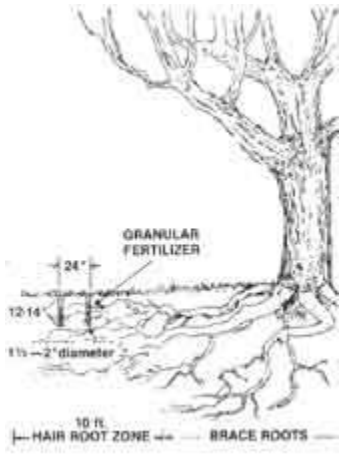
• Individual trees likely to suffer significant impacts may require specific, more extensive efforts and/or a more detailed specification than those contained within these general guidelines.

Aeration and Fertilization: Partners for Growth

I've said it before, but it bears repeating. Before you can have a healthy plant, it must have a healthy root system. Given this, there are a couple of things you can do this fall to strengthen the root systems of plants [and trees] in your landscape: namely, core aeration and fertilization. These two processes used together can do much to insure your plants' health and longevity. They can even help your plants recover from [recent] drought and flooding patterns.

Since the core aeration and fertilization focus on promoting well-being of root systems, fall is the ideal time to take on these projects. This is due to the fact that root systems continue to grow and recover long after top growth ceases for the season. Therefore, fertilization and core aeration at this time of year can do much to help root systems catch up and even get a head start on next year's growing season.

Basically, core aeration allows air to enter the soil around the root system by taking plugs of soil out, allowing the roots to "breathe". Fertilizer adds elements to the soil that become nutrients and are necessary for the plant's life functions to run smoothly. Fertilization without good air circulation in the root zone is helpful, but the two improvements are best used together as complementary processes rather than individual components.



Core aeration can be the saving grace of many of your older trees or plants and it can also help rejuvenate a tired lawn. To obtain maximum benefits for trees, plugs should be removed anywhere from 18 to 36 inches apart depending on soil density. They should also be one to one and a half inches in diameter and about 10 to 14 inches deep. Do a circle of holes at the drip line and 2 more circles outside and inside that area also at 18-36" apart. **Core aeration (also called vertical mulching) always helps improve a plant's root zone.**

Fertilization is the next logical step. If you are doing it yourself, a granular material is more convenient and it may break down over a longer period of time. Just use the recommended amount (see package directions) for the area of root zone you are going to fertilize and place the material in the core aeration holes. Pay close attention to the application rate because you will probably be putting only a small amount of fertilizer in each hole. To fill the holes to the top with fertilizer could very well burn the plant's roots and create lawn problems.

For plants that are slightly frail or are already showing signs of stress, core aeration should be your first reaction. However, fertilization probably shouldn't be your next step. Contrary to popular belief, fertilizer isn't the only thing to pull a sickly plant back from the brink. In reality, fertilizing a frail plant may cause severe damage to the root system. Therefore, if a plant looks weak, go ahead with core aeration and follow up with mulch and watering and an appropriate amount and type of slow release fertilizer.

With these guidelines in mind, the combination of core aeration and fertilization could be just the boost your plants and trees (and even the lawn) may need.

Article by Fred Hower, "The Ohio Nurseryman."

Tag #12022

Tag #12023

Tag #12024

Tag #12025

Tag #12026

Tag #12027

Tag #12028

Tag #12029

Tag #12030

Tag #12031

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Tag #12047

Tag #12048

Tag #12049

Tag #12050

Tag #12051

Tag #12052

Tag #12053

Tag #12054

Tag #12058

Tag #12059

Tag #12060

Tag #12061

ATTACHMENT 3

NOISE ASSESSMENT STUDY FOR THE PLANNED "MONTECITO ESTATES" SINGLE-FAMILY DEVELOPMENT DIANA AVENUE, MORGAN HILL

BY

EDWARD L. PACK ASSOCIATES, INC.

APRIL 28, 2019

EDWARD L. PACK ASSOCIATES. INC.

1975 HAMILTON AVENUE
SUITE 26
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April 28, 2019
Project No. 51-017

Mr. Joey Dinh
Planning Department
City of Morgan Hill
17575 Peak Avenue
Morgan Hill, CA 95037

Subject: Noise Assessment Study for the Planned "Montecito" Single-Family Development, Diana Avenue, Morgan Hill

Dear Mr. Dinh:

This report presents the results of a noise assessment study for the planned "Montecito" single-family development along Diana Avenue in Morgan Hill, as shown on the Site Development Plan, Ref. (a). The noise exposures presented herein were evaluated against the standards of the City of Morgan Hill Noise Element, Ref. (b). An analysis of the on-site noise measurements indicates that the noise environment is created primarily by traffic sources on Diana Avenue and Highway 101. The results of this study reveal that the noise exposures at the site are within the limits of the City of Morgan Hill Noise Element standards. Noise mitigation measures will not be required. Construction of the project may produce temporary noise impacts to existing residences in the area. Construction noise control methods are included in this report.

Section I of this report contains a summary of our findings. Subsequent sections contain the site, traffic and project descriptions, analyses, evaluations and the construction noise control methods. Appendices A, B and C contains the list of references, definitions of the terminology, descriptions of the acoustical instrumentation used for the field survey, general building shell controls and the on-site noise measurement data and calculation tables.

I. Findings

A. Noise Standards - City of Morgan Hill Noise Element

The noise exposures presented herein were evaluated against the standards of the City of Morgan Hill Noise Element, which utilizes the Day-Night Level (DNL) 24-hour descriptor to define acceptable noise exposures for various land uses. The standards specify a limit of 60 decibels (dB) DNL at the exterior living areas of single-family developments.

Interior living spaces of residential developments are limited to 45 dB DNL. In addition, the Noise Element specifies that when the exterior noise exposure is greater than 60 dB DNL, the *maximum instantaneous* noise levels shall not exceed 50 dBA in bedrooms and 55 dBA in other living spaces. The noise exposures at the site are no higher than 60 dB DNL. Thus, the interior maximum noise limits are not applicable.

Municipal Code 8.28.D - Construction Noise Limits

The construction activity limitations outlined in the City of Morgan Hill Municipal Code, Ref. (c), are shown below:

Construction activities as limited below. "Construction activities" are defined as including but not limited to excavation, grading, paving, demolition, construction, alteration or repair of any building, site, street or highway, delivery or removal of construction material to a site, or movement of construction materials on a site. Construction activities are prohibited other than between the hours of seven a.m. and eight p.m., Monday through Friday and between the hours of nine a.m. to six p.m. on Saturday. Construction activities may not occur on Sundays or federal holidays. No third person, including but not limited to landowners, construction company owners, contractors, subcontractors, or employers, shall permit or allow any person working on construction activities which are under their ownership, control or direction to violate this provision. Construction activities may occur in the following cases without violation of this provision:

In the event of urgent necessity in the interests of the public health and safety, and then only with a permit from the chief building official, which permit may be granted for a period of not to exceed three days or less while the emergency continues and which permit may be renewed for periods of three days or less while the emergency continues.

If the chief building official determines that the public health and safety will not be impaired by the construction activities between the hours of eight p.m. and seven a.m., and that loss or inconvenience would result to any party in interest, the chief building official may grant permission for such work to be done between the hours of eight p.m. and seven a.m. upon an application being made at the time the permit for the work is issued or during the progress of the work.

The city council finds that construction by the resident of a single residence does not have the same magnitude or frequency of noise impacts as a larger construction project. Therefore, the resident of a single residence may perform construction activities on that home during the hours in this subsection, as well as on Sundays and federal holidays from nine a.m. to six p.m., provided that such activities are limited to the improvement or maintenance undertaken by the resident on a personal basis.

Public work projects are exempt from this section and the public works director shall determine the hours of construction for public works projects.

Municipal Code 18.76.130 - Vibration.

Vibration transmitted through the ground that is discernible without instruments at the lot line of the establishment or use is prohibited. Vibrations from temporary construction, demolition, and vehicles that enter and leave the lot (e.g., construction equipment, trains, trucks, etc.) are exempt from this standard.

B. Exterior Noise Exposures

The noise exposures shown below are without the application of noise control measures and represent the noise environment for existing site and project conditions.

- The existing exterior noise exposure at the most impacted rear and side yard and the minimum planned building setback from Diana Avenue, 53 ft. from the centerline of Diana Avenue and 1,258 ft. from the centerline of Highway 101, is 59 dB DNL. Of this 59 dB, 54 dB is due to Diana Avenue traffic and 57 dB is due to Highway 101 traffic. Under future traffic conditions, the noise exposure is estimated to increase to 60 dB DNL, with 54 dB due to Diana Avenue traffic and 59 dB due to Highway 101 traffic. Thus, the noise exposures will be within the 60 dB DNL limit of the City of Morgan Hill Noise Element standards.

The existing exterior noise exposure at the most impacted rear and side yard and planned minimum building setback of homes at the rear of the site is 57 dB DNL. Under future traffic conditions, the noise exposure is estimated to increase to 59 dB DNL. The noise environment at the rear of the site is due primarily to traffic sources on Highway 101. The noise exposures will be within the 60 dB DNL limit of the City of Morgan Hill Noise Element standards.

As the exterior noise exposures over the site and in the exterior living areas of the project are within the limits of the standards, noise control measures will not be required.

C. Interior Noise Exposures

- The interior noise exposure in the most impacted living spaces closest to Diana Avenue will be up to 34 dB DNL. Under future traffic conditions, the noise exposure is estimated to increase to 35 dB DNL. Thus, the noise exposures will be within the 45 dB DNL limit of the City of Morgan Hill Noise Element standards.

- The existing exterior noise exposure at the most impacted living spaces of homes at the rear of the site will be up to 32 dB DNL. Under future traffic conditions, the noise exposure is estimated to increase to 34 dB DNL. The noise exposures will be within the 45 dB DNL limit of the City of Morgan Hill Noise Element standards.

As the interior noise exposures in project living spaces will be within the limits of the City of Morgan Hill Noise Element standards, noise control measures will not be required.

D. Project-Generated Construction Noise

Short-term noise impacts may be created during construction of the project. Demolition and construction equipment are typically similar, with the exception of paving equipment and pile drivers (impact hammers). However, pile driving is not expected on this project. The noise levels generated by the two phases will be similar over the course of entire process. With the exception of pile driving, blasting, vibratory compacting or rolling, construction equipment expected to be used on the site generates groundborne vibration level lower than 0.02 in/sec. peak particle velocity (ppv) at distances greater than 13 ft. The nearest homes are greater than 13 ft. from the project site where construction will occur.

A table of construction equipment (mostly earthwork equipment, which is usually the noisiest) taken from the Federal Transit Administration Noise and Vibration Impact Assessment, Ref. (d), is provided on page 7. The noise levels for each item of equipment, not all of which will be used on this project, are reported for a standard distance of 50 ft. From the information provided in the Table, demolition/construction equipment noise levels range from 76 to 85 dBA at a 50 ft. distance from the source. The residences to the west (building setback) are as close as 38 ft. from the project and the residences to the north and west (building setback) is as close as 5 ft. from the project.

Since construction is carried out in several reasonably discrete phases, each will have its own mix of equipment and consequently, its own noise characteristics. Generally, the site preparation requires the use of heavy equipment such as bulldozers, loaders, graders, concrete trucks and diesel trucks. Construction of the building includes haul trucks, cranes, forklifts, pumps, air compressors and powered and manual hand tools (saws, nail guns, sprayers). Once the shell of the building is completed with the windows installed, much of the construction noise will be contained inside the building.

Table I on page 8 of this study provides the list of equipment likely to be used on this project, the reference sound levels at 50 ft., the sound levels calculated at a distance of 25 ft., the hourly sound level assuming the use of the equipment 40% of time, the average distance from the item of equipment to the receptors and the sound levels at the receptors. Note that the average distances are acoustical averages not arithmetic averages. Also shown are the expected project-generated noise exposures at the most impacted residences.

As shown, the project construction noise exposures will cause increases in the existing noise environment by more than 3 decibels on the worst-case days. Noise control methods to minimize construction noise impacts to the neighbors are provided in Section V of this report.

Table 7-1 Construction Equipment Noise Emission Levels *

Equipment	Typical Noise Level 50 ft. from Source, dBA
Air Compressor	80
Backhoe	80
Ballast Equalizer	82
Ballast Tamper	83
Compactor	82
Concrete Mixer	85
Concrete Pump	82
Concrete Vibrator	76
Crane, Derrick	88
Crane, Mobile	83
Dozer	85
Generator	82
Grader	85
Impact Wrench	85
Jack Hammer	88
Loader	80
Paver	85
Pile-driver (Impact)	101
Pile-driver (Sonic)	95
Pneumatic Tool	85
Pump	77
Rail Saw	90
Rock Drill	95
Roller	85
Saw	76
Scarifier	83
Scraper	85
Shovel	82
Spike Driver	77
Tie Cutter	84
Tie Handler	80
Tie Inserter	85
Truck	84

**This Table is copied from the FTA Transit Noise and Vibration Impact Assessment Manual, pg. 176.

TABLE I

Project-Generated Construction Noise Levels, dBA

	Reference		Sound Level	40% usage	Residence to West		Residence to North		Residence to East	
Equipment	Level	Dist., ft.	25 ft.	Leq(h) @ 25 ft.	Avg. Dist.	Sound Level	Avg. Dist.	Sound Level	Avg. Dist.	Sound Level
Paving Machine	85	50	**91**	73	93	62	71	64	24	74
Water Truck	84	50	**90**	72	93	61	71	63	24	73
Compactive Rollers	85	50	**91**	73	93	62	71	64	24	74
Scrapers	85	50	**91**	73	93	62	71	64	24	74
Graders	83	50	**89**	71	93	60	71	62	24	72
Wheel Loader	80	50	**86**	68	93	57	71	59	24	69
Track Loader	85	50	**91**	73	93	62	71	64	24	74
Backhoe	80	50	**86**	68	93	57	71	59	24	69
Bulldozer	85	50	**91**	73	93	62	71	64	24	74
Haul Trucks	84	50	**90**	72	93	61	71	63	24	73
Crane	83	50	**89**	71	93	60	71	62	24	72
Excavator	85	50	**91**	73	93	62	71	64	24	74
Air Compressor	80	50	**86**	68	93	57	71	59	24	69
Generator	82	50	**88**	70	93	59	71	61	24	71
Jackhammer	88	50	**94**	76	93	64	71	67	24	76
Air Tools	78	85	**89**	71	93	59	71	62	24	71
Pumps	77	50	**83**	65	93	54	71	56	24	66
Nail Gun	81	50	**87**	69	93	58	71	60	24	70
					DNL	**67**	**DNL**	**69**	**DNL**	**79**

II. Site, Traffic and Project Descriptions

The planned project site is located along Diana Avenue, west if Highway 101 in Morgan Hill and currently contains one single-family residence. The site is flat and approximately at-grade with surrounding roadways and land uses. Surrounding land uses include single-family residential adjacent to the west, north, east and south.

The on-site noise environment is controlled primarily by traffic sources on Highway 101 and Diana Avenue. Highway 101 carries an Average Daily Traffic (ADT) volume of 136,500 vehicles in 2017, Ref. (e). Traffic volume data for Diana Avenue were not available at the time of this study. Diana Avenue terminates as it approaches Highway 101. There are few residential streets off of Diana Avenue east of the site.

The planned project includes the construction of 24 single-family homes. Ingress and egress to the project will be by way of project driveways off of Diana Avenue, new public streets off of Diana Avenue and an extension of Weichert Drive. The Site Development Plan is shown on Figure 1, below.

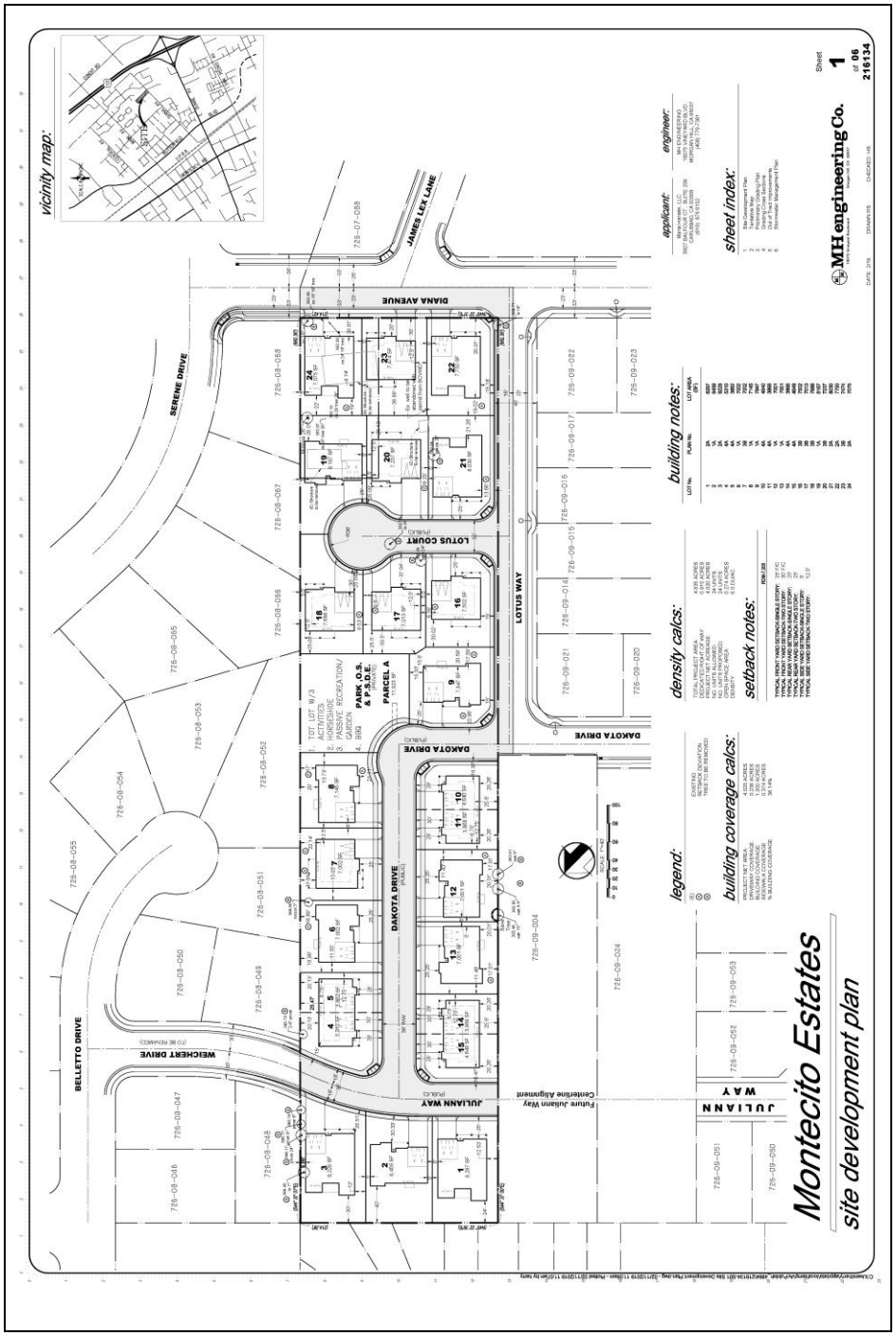

FIGURE 1 – Site Development Plan

III. Analysis of the Noise Levels

A. Existing Noise Levels

To determine the existing noise environment at the site, continuous recordings of the sound levels were made at two locations. Location 1 was 33 ft. from the centerline of Diana Avenue, corresponding to the front property line of the site contiguous with Diana Avenue. The sound meter was attached to a power pole at an elevation of 15 ft. above the ground. Location 2 was 15 ft. from the east property line near the terminus of Weichert Drive, 1,320 ft. from the centerline of Highway 101. The sound meter was placed on a mast 15 ft. above the site grade. This location corresponds to the planned setback of the homes near the back of the site most noise impacted by Highway 101 traffic sources. The noise level measurement locations are shown in Figure 2 on page 12.

The noise level measurements were made on April 16-17, 2019 using Larson-Davis 812 Precision Integrating Sound Level Meters. The meters yield, by direct readout, a series of descriptors of the sound levels versus time, as described in Appendix B. The measured descriptors included the L_1, L_{10}, L_{50}, and L_{90}, i.e., those levels that are exceeded 1%, 10%, 50%, and 90% of the time. Also measured were the maximum and minimum levels, and the continuous equivalent-energy levels (L_{eq}), which are used to calculate the DNL.

The measurements were made for a total period of 24 continuous hours and included recordings of the noise levels during representative hours of the daytime and nighttime periods of the DNL index. The results of the measurements are shown in data tables in Appendix C.

As shown in the tables, the L_{eq}'s at measurement Location 1, 34 ft. from the centerline of Diana Avenue and 1,258 ft. from the centerline of Highway 101, ranged from 56.0 to 61.4 dBA during the daytime and from 46.9 to 54.7 dBA at night.

The L_{eq}'s at measurement Location 2, 1,320 ft. from the centerline of Highway 101, ranged from 48.4 to 55.5 dBA during the daytime and from 43.9 to 55.1 dBA at night.

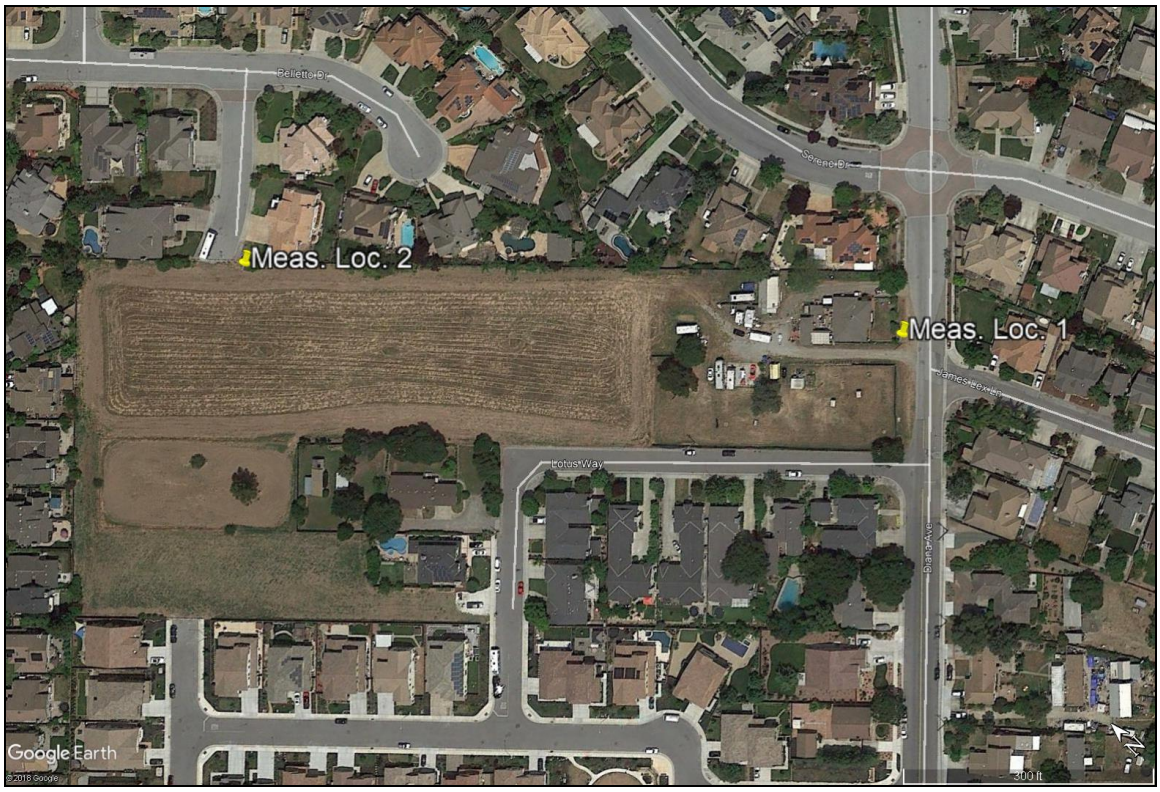

FIGURE 2 – Noise Measurement Locations

B. Future Noise Levels

Future traffic volume data for Highway 101 were not available from CalTrans. Therefore, a future projection was made based on traffic growth from historical data. The 1997 traffic volume was reported to be 88,000 vehicles ADT, Ref. (f). The 2017 volume was 136,500 vehicles ADT. Over the past 20 years, the annual average growth rate was calculated to be 2.2% per year. Applying this growth rate to the future 20 years, the 2037 traffic volume was calculated to be 211,730 vehicles ADT. This increase in traffic volume yields a 2 dB increase in the Highway 101 traffic noise levels.

Future traffic volume data for Diana Avenue are not available. Due to the buildout of the area, the future volumes are expected to be lower than a 15% increase, which is the minimum increase necessary to increase the noise environment by 1 decibel.

IV. Evaluation of the Noise Exposures

A. Exterior Noise Exposures

To evaluate the noise exposures against the City of Morgan Hill Noise Element standards, the DNL's for the survey locations were calculated by decibel averaging of the L_{eq}'s as they apply to the daily time periods of the DNL index. The DNL is a 24-hour noise descriptor that uses the measured L_{eq} values to calculate a 24-hour time-weighted average noise exposure. The formula used to calculate the DNL is described in Appendix B. Adjustments were applied to the measured noise levels to account for the various setback distances from the measurement locations using methods established by the Highway Research Board, Ref. (g).

The results of the calculations reveal that the noise exposure at measurement Location 1, 33 ft. from the centerline of Diana Avenue, is 60 dB DNL. At the planned minimum building setback, side yard and rear yard, 53 ft. from the centerline of Diana Avenue and 1,258 ft. from the centerline of Highway 101, the noise exposure is 59 dB DNL. Under future traffic conditions, the noise exposure is expected to increase to 60 dB DNL. Thus, the noise exposures are within the 60 dB DNL limit of the City of Morgan Hill Noise Element standards.

The noise exposure at measurement Location 2 at the planned minimum setback of homes closest to Highway 101 at the back of the site, 1320 ft. from the Highway 101 centerline, the noise exposure is 57 dB DNL. Under future traffic conditions, the noise exposure is expected to increase to 59 dB DNL.

B. Interior Noise Exposures

To determine the interior noise exposures, a 25 dB reduction was applied to the exterior noise exposures at the building setback locations to represent the attenuation provided by a typical building shell under a closed window condition. The closed window condition allows the residents to keep the windows closed at all times for noise control as supplementary mechanical ventilation will be required per the State of California Mechanical Code.

The interior noise exposures in the living spaces closest to Diana Avenue were calculated to be 34 and 35 dB DNL under existing and future traffic conditions, respectively. Thus, the noise exposures will be within the 45 dB DNL limit of the City of Morgan Hill Noise Element and Title 24standards.

The interior noise exposures in the most impacted living spaces closest to Highway 101 at the back of the site will be up to 32 and 34 dB DNL under existing and future traffic conditions, respectively. Thus, the noise exposures will be within the 45 dB DNL limit of the City of Morgan Hill Noise Element and Title 24standards.

As shown by the above evaluations, the exterior exposures and the interior noise exposures will be within the limits of the City of Morgan Hill Noise Element standards. Noise mitigation measures for the project will not be required.

V. Construction Noise Reduction Methods

Reduction of the demolition/construction phase noise at the site can be accomplished by using quiet or "new technology" equipment. The greatest potential for noise abatement of current equipment should be the quieting of exhaust noises by use of improved mufflers. It is recommended that all internal combustion engines used at the project site be equipped with a type of muffler recommended by the vehicle manufacturer. In addition, all equipment should be in good mechanical condition so as to minimize noise created by faulty or poorly maintained engine, drive-train and other components. Demolition and construction noise can also be mitigated by the following:

OPERATIONAL AND SITUATIONAL CONTROLS

- All work on site shall be restricted to 7:00 AM to 8:00 PM Weekdays, 9:00 AM to 6:00 PM, Saturdays and no work allowed on Sundays and Federal Holidays to comply with the City of Morgan Hill Municipal Code standards.
- All construction noise control measures currently imposed on the project shall be maintained unless the measures outlined herein are more restrictive.
- No material deliveries are allowed on Sundays or Federal Holidays.
- Cranes shall be located at least 100 ft. from any neighboring residential property line with the exception of cranes or lifts necessary to dismantle scaffolding.
- Minimize material movement along the west, north and east sides of the site.
- Locate stockpiles adjacent to residential neighbors as much as possible to help shield residences from on-site noise generation.
- Music shall not be audible off site.

- Dirt berming and stockpiling materials whenever possible can also help reduce noise to sensitive receptor locations.

- Place long-term stationary equipment as far away from the residential areas as possible.

- Keep mobile equipment (haul trucks, concrete trucks, etc.) off of local streets near residences as much as possible.

- Keep vehicle paths graded smooth as rough roads and paths can cause significant noise and vibration from trucks (particularly empty trucks) rolling over rough surfaces. Loud bangs and ground-borne vibration can occur.

- Limit the extent of heavy diesel engine equipment work to less than 10 consecutive days when working within 40 ft. of residential property lines.

INTERIOR WORK

- For interior work, the windows of the interior spaces facing neighboring residences where work is being performed shall be kept closed while work is proceeding.

- Noise generating equipment indoors should be located within the building to utilize building elements as noise screens.

EQUIPMENT

- Earth Removal: Use scrapers as much as possible for earth removal, rather than the noisier loaders and hauling trucks.

- Backfilling: Use a backhoe for backfilling, as it is less costly and quieter than either dozers or loaders.

- Ground Preparation: Use a motor grader rather than a bulldozer for final grading. Wheeled heavy equipment is less noisy than track equipment. Utilize wheeled equipment rather than track equipment whenever possible.

- Building Construction: Nail guns should be used where possible as they are less noisy than manual hammering.

- Generators and Compressors: Use generators, compressors and pumps that are housed in acoustical enclosures rather than weather enclosures or none at all.

- Utilize temporary power service from the utility company in lieu of generators wherever possible.

- Circular saws, miter/chop saws and radial arm saws shall be used no closer than 50 ft. from any residential property line unless the saw is screened from view by any and all residences using an air-tight screen material of at least 2.0 lbs./sq. ft. surface weight, such as ¾" plywood.

- Use electrically powered tools rather than pneumatic tools whenever possible.

- Mitigation of the construction phase noise at the site can be accomplished by using quiet or "new technology" equipment.

- The greatest potential for noise abatement of current equipment should be the quieting of exhaust noises by use of improved mufflers.

- It is recommended that all internal combustion engines used at the project site be equipped with a type of muffler recommended by the vehicle manufacturer.

- All equipment should be in good mechanical condition so as to minimize noise created by faulty or poorly maintained engines, drive-trains and other components. Worn, loose or unbalanced parts or components shall be maintained or replaced to minimize noise and vibration.

- Utilize wheeled equipment rather than tracked equipment whenever possible.

- Diesel vibrating compaction equipment shall not be used within 100 ft. of a residential structure.

NOISE COMPLAINT MANAGEMENT

- Designate a noise complaint officer. The officer shall be available at all times during construction hours via both telephone and email. Signs shall be posted at site entries. A sample is shown below.

NOISE COMPLAINTS

FOR CONCERNS REGARDING CONSTRUCTION NOISE PLEASE CONTACT:

"CONSTRUCTION OFFICER"
Conoff@jobsite.com
OPERATIONS MANAGEMENT ENGINEER
CALL CENTER: (111) 111-1111

- Notify, in writing, all residents within 300 ft. of the site of construction. The notification shall contain the name, phone number and email address of the noise complaint officer. A flyer may be placed at the doors of the residences.

- A log of all complaints shall be maintained. The logs shall contain the name and address of the complainant, the date and time of the complaint, the nature/description of the noise source, a description of the remediation attempt or the reason remediation could not be attempted.

The above report presents a noise assessment study for the planned "Montecito" single-family development along Diana Avenue in Morgan Hill. The study findings for present conditions are based on field measurements and other data and are correct to the best of our knowledge. Future noise exposures were based on information provided by CalTrans. However, significant deviations in the future traffic volumes, or changes in motor vehicle technology, speed limits, noise regulations, or other future changes beyond our control may produce long-range noise results different from our estimates.

If you need any additional information or would like an elaboration on this report, please call me.

Sincerely,

EDWARD L. PACK ASSOC., INC.

Jeffrey K. Pack
President

Attachment: Appendices A, B and C

APPENDIX A

References:

(a) Site Development Plan, "Montecito", by MH Engineering, February 2019

(b) City of Morgan Hill General Plan, Health and Safety Element, "Noise", July 2001

(c) City of Morgan Hill Code of Ordinances, Title 8 – Health and Safety, Chapter 8.28 –Noise, Subsection 8.28.040 – Enumeration of unlawful noises, March 28, 2019.

(d) Federal Transit Administration, Transit Noise and Vibration Impact Assessment Manual, FTA Report No. 0123, by John A Volpe National Transportation Systems Center, September 2018

(e) State of California Department of Transportation, Division of Traffic Operations, http://www.dot.ca.gov/trafficops/census/volumes2017/Route101.html

(f) 1997 Traffic Volumes on California State Highways, State of California Department of Transportation, Division of Traffic Operations, June 1998

(g) Highway Research Board, "Highway Noise – A Design Guide for Highway Engineers", Report 117, 1971

APPENDIX B

Noise Standards, Terminology, Instrumentation and General Building Shell Controls

1. Noise Standards

A. City of Morgan Hill Noise Element Standards

The Public Health and Safety (Noise) Element of the City of Morgan Hill General Plan, adopted July, 2001, contains land use compatibility standards for various land uses.

The maximum exterior noise level of 60 dBA L_{dn} shall be applied in residential areas where outdoor use is a major consideration (e.g., backyards in single family housing developments and recreation areas in multi-family housing projects). Where the City determines that providing an L_{dn} of 60 dBA or lower cannot be achieved after the application of reasonable and feasible mitigation, an L_{dn} of 65 dBA maybe permitted.

• Indoor noise levels should not exceed an L_{dn} of 45 dBA in new residential housing units.

• Noise levels in new residential development exposed to an exterior $L_{dn\ of}$ 60 dBA or greater should be limited to a maximum instantaneous noise level(e.g., trucks on busy streets, train warning whistles) in bedrooms of 50dBA. Maximum instantaneous noise levels in all other habitable rooms should not exceed 55 dBA.

The maximum outdoor noise level for new residences near the railroad shall be 70 dBA L_{dn}, recognizing that train noise is characterized by relatively few loud events.

The Noise Element references the Land Use Compatibility chart from the State of California Guidelines for the Preparation of a Noise Element. The "Normally Acceptable" standards for the land use categories are as follows:

2. Terminology

A. Statistical Noise Levels

Due to the fluctuating character of urban traffic noise, statistical procedures are needed to provide an adequate description of the environment. A series of statistical descriptors have been developed which represent the noise levels exceeded a given percentage of the time. These descriptors are obtained by direct readout of the Sound Level Meters. Some of the statistical levels used to describe community noise are defined as follows:

L_1 - A noise level exceeded for 1% of the time.

L_{10} - A noise level exceeded for 10% of the time, considered to be an "intrusive" level.

L_{50} - The noise level exceeded 50% of the time representing the "mean" sound level.

L_{90} - The noise level exceeded 90 % of the time, designated as a "background" noise level.

L_{eq} - The continuous equivalent-energy level is that level of a steady-state noise having the same sound energy as a given time-varying noise. The L_{eq} represents the decibel level of the time-averaged value of sound energy or sound pressure squared and is used to calculate the DNL and CNEL.

B. Day-Night Level (DNL)

Noise levels utilized in the standards are described in terms of the Day-Night Level (DNL). The DNL rating is determined by the cumulative noise exposures occurring over a 24-hour day in terms of A-Weighted sound energy. The 24-hour day is divided into two sub-periods for the DNL index, i.e., the daytime period from 7:00 a.m. to 10:00 p.m., and the nighttime period from 10:00 p.m. to 7:00 a.m. A 10 dBA weighting factor is applied (added) to the noise levels occurring during the nighttime period to account for the greater sensitivity of people to noise during these hours. The DNL is calculated from the measured L_{eq} in accordance with the following mathematical formula:

$$DNL = \left[[(10\log_{10}(10^{\Sigma Leq(7\text{-}10)})) \times 15] + [((10\log_{10}(10^{\Sigma Leq(10\text{-}7))})+10) \times 9]\right]/24$$

C. A-Weighted Sound Level

The decibel measure of the sound level utilizing the "A" weighted network of a sound level meter is referred to as "dBA". The "A" weighting is the accepted standard weighting system used when noise is measured and recorded for the purpose of determining total noise levels and conducting statistical analyses of the environment so that the output correlates well with the response of the human ear.

3. Instrumentation

The on-site field measurement data were acquired by the use of one or more of the sound analyzer listed below. The instrumentation provides a direct readout of the L exceedance statistical levels including the equivalent-energy level (L_{eq}). Input to the meters were provided by microphones extended to a height of 5 ft. above the ground. The "A" weighting network and the "Fast" response setting of the meters were used in conformance with the applicable standards. The Larson-Davis meters were factory modified to conform to the Type 1 performance standards of ANSI S1.4. All instrumentation was acoustically calibrated before and after field tests to assure accuracy.

Bruel & Kjaer 2231 Precision Integrating Sound Level Meter
Larson Davis LDL 812 Precision Integrating Sound Level Meter
Larson Davis 2900 Real Time Analyzer
Larson Davis 831 Precision Integrating Sound Level Meter

4. Building Shell Controls

The following additional precautionary measures are required to assure the greatest potential for exterior-to-interior noise attenuation by the recommended mitigation measures. These measures apply at those units where closed windows are required.

- Unshielded entry doors having a direct or side orientation toward the primary noise source must be 1-5/8" or 1-3/4" thick, insulated metal or solid-core wood construction with effective weather seals around the full perimeter.

- If any penetrations in the building shell are required for vents, piping, conduit, etc., sound leakage around these penetrations can be controlled by sealing all cracks and clearance spaces with a non-hardening caulking compound.

- Ventilation devices shall not compromise the acoustical integrity of the building shell.

APPENDIX C

On-Site Noise Measurement Data and Calculation Tables

DNL CALCULATIONS

CLIENT: CITY OF MORGAN HILL
FILE: 51-017
PROJECT: MONTECITO
DATE: APRIL 16-17/2019
SOURCE: DIANA AVE., HIGHWAY 101

LOCATION 1	Diana Ave.			
Dist. To Source	33 ft.			
TIME	Leq	10^Leq/10		
7:00 AM	58.0	630957.3		
8:00 AM	58.6	724436.0		
9:00 AM	58.4	691831.0		
10:00 AM	58.2	660693.4		
11:00 AM	58.2	660693.4		
12:00 PM	56.8	478630.1		
1:00 PM	60.2	1047128.5		
2:00 PM	60.1	1023293.0		
3:00 PM	59.6	918332.6		
4:00 PM	58.4	691831.0		
5:00 PM	61.2	1318256.7		
6:00 PM	58.8	758577.6		
7:00 PM	61.4	1380384.3		
8:00 PM	56.8	478630.1		
9:00 PM	56.0	398107.2	SUM=	11861782.2
10:00 PM	53.8	239883.3	Ld=	70.7
11:00 PM	51.6	144544.0		
12:00 AM	47.7	58884.4		
1:00 AM	47.6	57544.0		
2:00 AM	46.9	48977.9		
3:00 AM	48.1	64565.4		
4:00 AM	50.0	100000.0		
5:00 AM	54.1	257039.6		
6:00 AM	54.7	295120.9	SUM=	1266559.4
			Ln=	61.0
	Daytime Level=	70.7		
	Nighttime Level=	71.0		
	DNL=	**60**		
	24-Hour Leq=	57.4		

LOCATION 2	Northeast Area of Site, East PL			
Dist. To Source	1,320 ft.			
TIME	Leq	10^Leq/10		
7:00 AM	49.1	81283.1		
8:00 AM	50.4	109647.8		
9:00 AM	50.1	102329.3		
10:00 AM	48.4	69183.1		
11:00 AM	48.8	75857.8		
12:00 PM	49.6	91833.3		
1:00 PM	49.6	91201.1		
2:00 PM	50.9	123026.9		
3:00 PM	52.2	165958.7		
4:00 PM	53.4	218776.2		
5:00 PM	53.7	234422.9		
6:00 PM	54.5	281838.3		
7:00 PM	55.5	354813.4		
8:00 PM	54.0	251188.6		
9:00 PM	52.2	165958.7	SUM=	2417319.0
10:00 PM	50.0	100000.0	Ld=	63.8
11:00 PM	48.8	75857.8		
12:00 AM	45.1	32359.4		
1:00 AM	47.6	57544.0		
2:00 AM	43.9	24547.1		
3:00 AM	48.0	63095.7		
4:00 AM	48.8	75857.8		
5:00 AM	49.6	91201.1		
6:00 AM	55.1	323593.7	SUM=	844056.4
			Ln=	59.3
	Daytime Level=	63.8		
	Nighttime Level=	69.3		
	DNL=	**57**		
	24-Hour Leq=	51.3		