3.8 - Hydrology and Water Quality

3.8.1 - Introduction

This section describes the existing hydrology and water quality setting in the region and Specific Plan area (plan area) as well as the relevant regulatory framework. This section also evaluates the possible impacts related to hydrology and water quality that could result from implementation of the Specific Plan (proposed plan). Information in this section is based on the Pleasant Hill 2003 General Plan, Pleasant Hill 2003 General Plan Environmental Impact Report (EIR), and project-specific Final Floodplain Evaluation Report, (see Appendix H).[1,2] The following comments were received during the EIR scoping period related to hydrology and water quality:

- Requests project-level details and design to control stormwater runoff;
- Requests project-level details and design features that address flood risks;
- Requests plan for control of water pollution attributed to runoff from construction and operational activities that may impact Grayson Creek;
- East Bay Municipal Utilities District (EBMUD) requests procedure 710 is followed: site assessment for drainage grading, fencing, construction access;
- Requests project developer construct on-site public main sewers and private laterals; and
- Requests building plans for review and to pay fees at time of plan submission.

3.8.2 - Environmental Setting

Surface Hydrology, Flooding and Inundation

Walnut Creek Watershed

The Contra Costa Clean Water Program (CCCWP) designates watersheds in Contra Costa County. According to the CCCWP, the plan area is located within the Walnut Creek Watershed, which is composed of the following sub-watersheds: Grayson-Murderers, Concord, Pine-Galindo, San Ramon, and Las Trampas. The overarching Walnut Creek Watershed and its tributaries encompass 93,556 acres in Central Contra Costa County. All tributaries within the Walnut Creek Watershed eventually drain into Suisun Bay and ultimately to the Pacific Ocean.

As seen in the Pleasant Hill 2003 General Plan, Hills, Creeks, and Neighborhoods map, the east fork of Grayson Creek and Murderers Creek are tributaries of Grayson Creek,[3] which is located approximately 1.8 miles to the north of the plan area. The Federal Emergency Management Agency (FEMA) National Flood Hazard Layer (NFHL) is a geospatial database that contains current effective flood hazard data. The NFHL shows three flood zones in the vicinity of the plan area (Exhibit 3.8-1): Zone AE, Zone X (shaded), and Zone X (unshaded). Zone AE represents a Special Flood Hazard Area (SFHA) subject to

[1] WRECO (prepared for the City of Pleasant Hill). Final Floodplain Evaluation Report. December 2018.
[2] Note that the Final Floodplain Evaluation Report prepared by WRECO for the City of Pleasant Hill in January 2019 was peer reviewed by Balance Hydrologics, Inc. on February 22, 2019.
[3] City of Pleasant Hill. Pleasant Hill 2003 General Plan, Community Development at page 14.

flooding by the 100-year (base) flood event determined by detailed methods where Base Flood Elevations are shown. Zone X (shaded) represents moderate flood hazard areas that are between the limits of the 100-year flood and the 500-year flood. Zone X (unshaded) represents areas of minimal flood hazard—these areas are outside the SFHA and higher than the elevation of the 500-year flood.

Plan Area

The plan area is located within the Grayson-Murderers Sub-watershed, which is 11,021 acres in size and encompasses most of the City of Pleasant Hill, the western area of Walnut Creek, and the eastern portion of Briones Regional Park.[4] The main tributaries of the Grayson-Murderers Creek Sub-watershed are Grayson Creek, the east fork of which is located adjacent to the plan area, and Murderers Creek, located approximately 1,600 feet to the west of the plan area.

Portions of the plan area are located in SFHA Zone AE, which represents areas subject to flooding by the 100-year storm event (Exhibit 3.8-2). Under existing conditions, overflow from Murderer's Creek during the 100-year storm event escapes the Murderer's Creek drainage system, flows parallel to Oak Park Boulevard and enters the floodplains of the upper east fork of Grayson Creek. Murderer's Creek overflow flows from the west in an east-northeast direction from Oak Park Boulevard. A portion of this overland flow diverges from Oak Park Boulevard, ponding in the parking lot of the existing library site before overflowing onto Monticello Avenue and continuing east-northeastward over the proposed library site. The overbank flood flow from Grayson Creek generally flows from south to north at the plan area.[5]

Surface Water Quality

City of Pleasant Hill

The City of Pleasant Hill is located within the Suisun Basin under the jurisdiction of the San Francisco Bay Regional Water Quality Control Board (RWQCB). The San Francisco Bay Basin (Region 2) Water Quality Control Plan (Basin Plan) outlines the beneficial water uses that the State Water Resources Control Board (State Water Board) will protect, water quality objectives, and strategies for achieving these objectives.

Plan Area

All properties in the plan area are located within the Suisun Basin under the jurisdiction of the San Francisco Bay RWQCB. The east fork of Grayson Creek is located along the eastern boundary of the plan area and drains northward into Grayson Creek and onward to Suisun Bay.

Groundwater Basin Hydrology

City of Pleasant Hill

The Ygnacio Valley Groundwater Basin is in northern Contra Costa County. The basin surface area is approximately 15,900 acres bounded by Suisun Bay to the north, Interstate 680 to the west, the

[4] Contra Costa Clean Water Program (CCCWP). "Watersheds in Contra Costa County." Website: https://www.cccleanwater.org/watersheds/watersheds-in-contra-costa-county. Accessed November 8, 2018.
[5] WRECO. Floodplain Evaluation Report, page 6. January 2019.

Concord Fault to the east, and the City of Walnut Creek to the south.[6] Walnut Creek and Grayson Creek flow through the basin before draining into Pacheco Creek and then into the Suisun Bay.

The Ygnacio Valley Groundwater Basin underlies the cities of Pleasant Hill and Walnut Creek.[7] The Ygnacio Valley Basin occupies a structural depression between the Berkeley Hills and the Mount Diablo Range. Thick alluvial deposits that cover a faulted and folded complex of consolidate Cretaceous and Tertiary rocks underlie the basin. The water-bearing units in the basin are Quaternary Alluvium and Alluvial valley fill deposits. Aquifers in the basin area are hydrologically connected to the Sacramento River.[8]

Plan Area

Groundwater exists at depths between 2.1 feet and 19 feet below the plan area.[9]

Groundwater Water Quality

The City of Pleasant Hill is located within the Ygnacio Valley Groundwater Basin. According to California Department of Water Resources (DWR) Bulletin 118: Ygnacio Valley Groundwater Basin, no published groundwater quality data is available for the basin.[10]

Stormwater Runoff

City of Pleasant Hill

The San Francisco Bay RWQCB administers the National Pollution Discharge Elimination System (NPDES) stormwater permitting program and regulates stormwater in the San Francisco Bay region. The City of Pleasant Hill is a permittee under the Phase II NPDES Municipal Stormwater Permit. The Pleasant Hill Clean Water Program implements the City of Pleasant Hill-specific components of the CCCWP. In addition, the City maintains storm drain pipes and catch basins.

Plan Area

Civic Project

The Civic Project site was developed but is currently vacant. Gutters and several stormwater drains extend along Monticello Avenue and Oak Park Boulevard that collect stormwater from the Civic Project site and adjacent single-family homes to the west.

The Civic Project site contains one 8”outfall, a 36” outfall, and an 8” abandoned storm drain. Stormwater sheet flows eastward across the site and drains into Grayson Creek. Exhibit 3.8-3 shows that the site is composed of pervious and impervious surfaces. The Civic Project site includes 9.54 acres of pervious surface and 2.09 acres of impervious surface.

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[6] Contra Costa County. California Groundwater Bulletin 118. Website: https://www.contracosta.ca.gov/DocumentCenter/View/34130/CDWR-2004_Ygnacio-Valley-Bulletin-118. Accessed November 8, 2018.

[7] California Department of Water Resources (DWR). Website: https://sgma.water.ca.gov/portal/gsa/print/259.

[8] *Ibid*.

[9] ENGEO. 2018. Geotechnical Exploration.

[10] California Department of Water Resources (DWR). California’s Groundwater Bulletin 118. Ygnacio Valley Groundwater Basin.

Residential Project

The Residential Project site contains curbs and street level gutters that convey stormwater off-site and eventually into the City's storm drain network on Monticello Avenue and Oak Park Boulevard. Exhibit 3.8-3 shows that the Residential Project site is composed of pervious and impervious surfaces. The Residential Project site is comprised of 1.30 acres of pervious surface and 3.74 acres of impervious surface.[11]

Dams and Levees

Contra Costa County

The DWR, Division of Safety of Dams, regulates dam safety. All large reservoirs in Contra Costa County have been investigated and many have been strengthened. Further, the Office of Emergency Services has produced inundation maps and emergency plans covering various scenarios of dam failure in Contra Costa County.

City of Pleasant Hill

The City of Pleasant Hill is not located within the inundation area of any dams. According to the Contra Costa Hazard Mitigation Plan (CCHMP), dam failure events are infrequent and usually coincide with other natural disasters such as earthquakes.

Plan Area

Map 10-1 in the CCHMP does not identify the plan area within a dam failure inundation zone.[12]

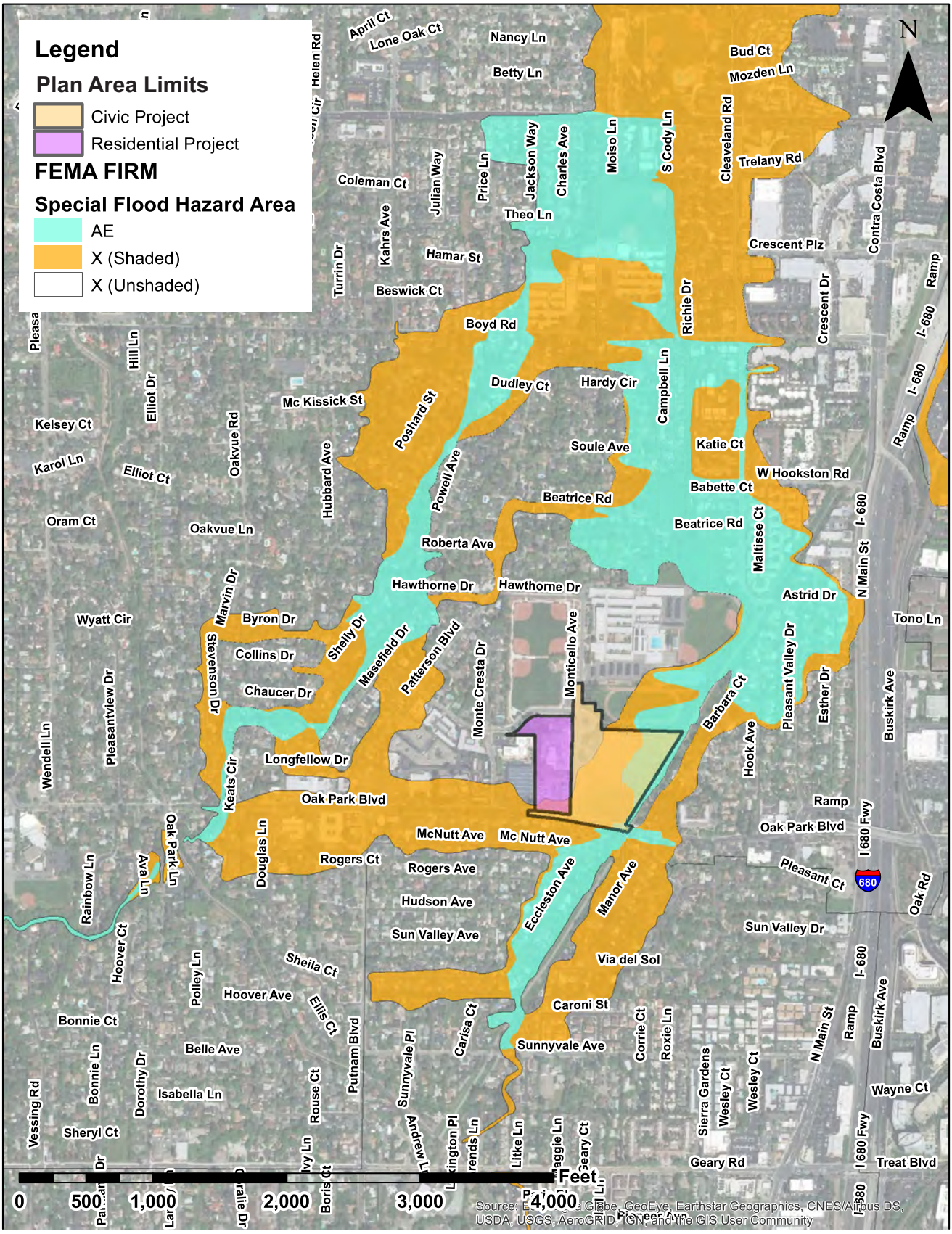
3.8.3 - Regulatory Framework

Federal

Clean Water Act

The United States Army Corp of Engineers (USACE) regulates discharge of dredge or fill material into waters of the United States under Section 404 of the Clean Water Act (CWA). "Discharges of fill material" is defined as the addition of fill material into waters of the United States, including, but not limited to the following: placement of fill that is necessary for the construction of any structure, or impoundment requiring rock, sand, dirt, or other material for its construction; site-development fills for recreational, industrial, commercial, residential, and other uses; causeways or road fills; fill for intake and outfall pipes and subaqueous utility lines (33 CFR § 328.2(f)). In addition, Section 401 of the CWA (33 United States Code [USC] 1341) requires any applicant for a federal license or permit to conduct any activity that may result in a discharge of a pollutant into waters of the United States to obtain a certification that the discharge will comply with the applicable state water quality standards.

[11] Keith Palmer, BKF Engineers, 2019.
[12] Contra Costa County. Hazard Mitigation Plan Update, May 2011, page 109.



Source: WRECO, 2019.

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Exhibit 3.8-1
FEMA Special Flood Hazard Areas

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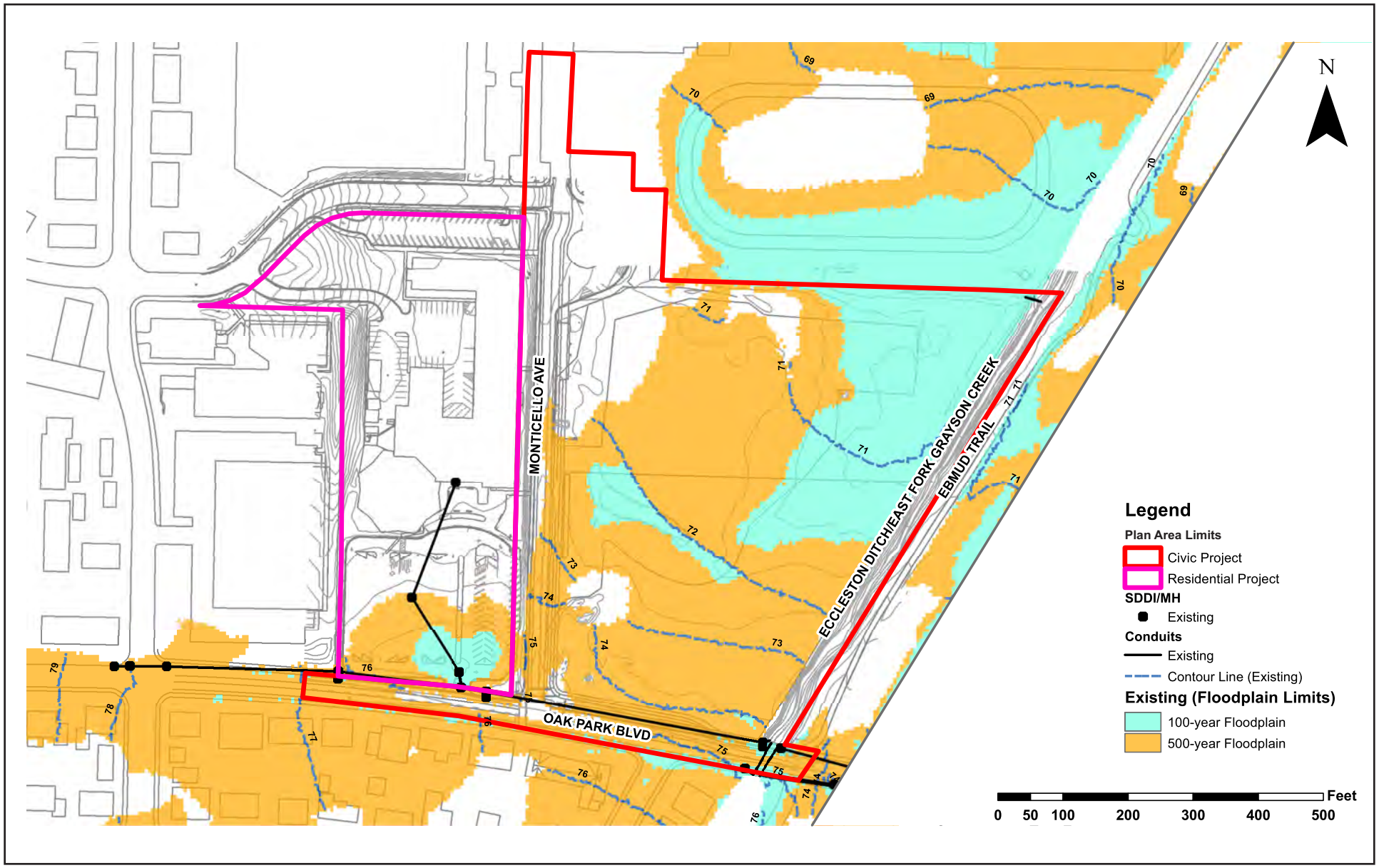

Source: WRECO, 2019.

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Exhibit 3.8-2
Existing 100-year and 500-year Floodplains

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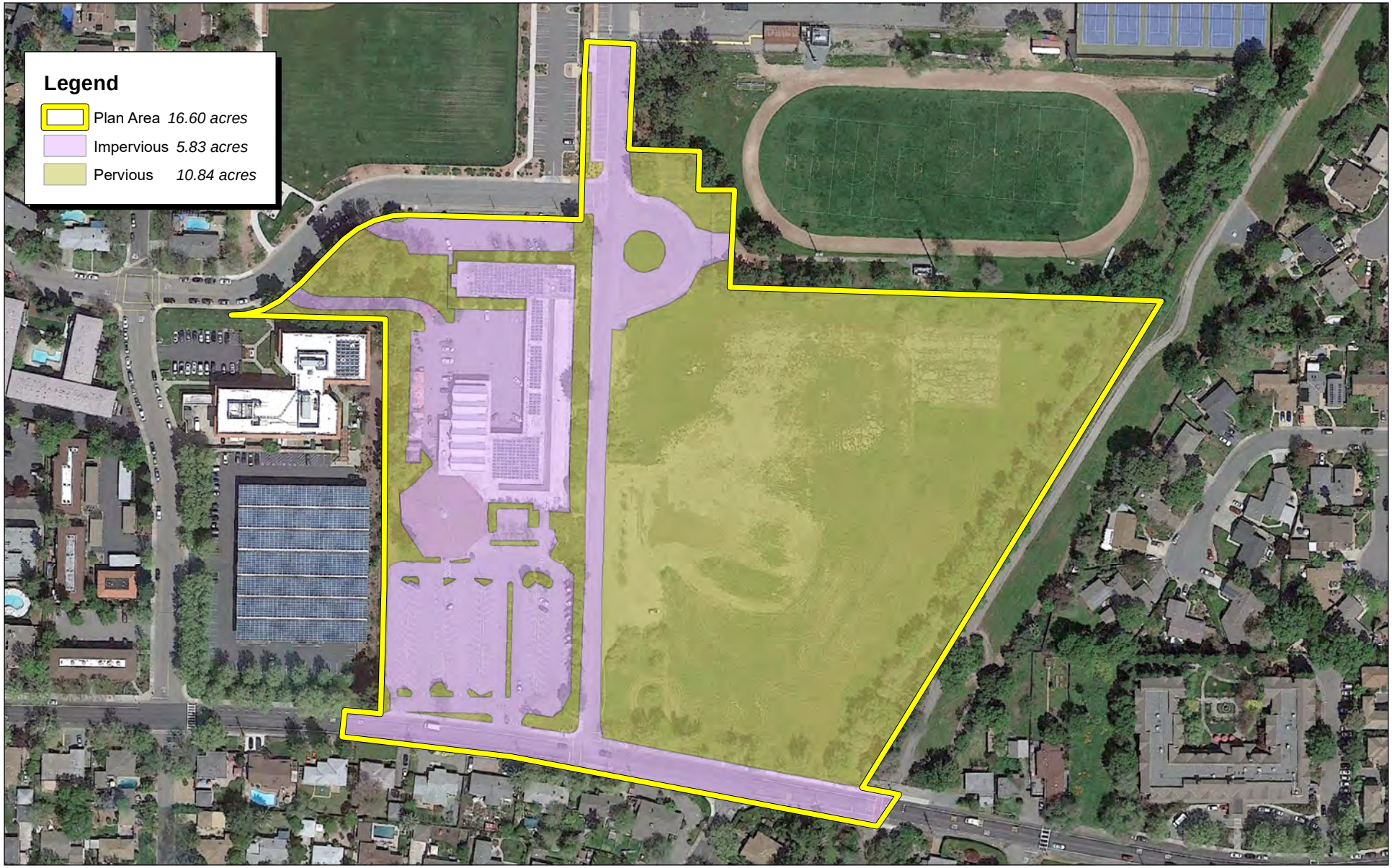

Source: Google Earth Pro

FIRSTCARBON SOLUTIONS™

200 100 0 200
Feet

Exhibit 3.8-3
Existing Pervious Versus Impervious Surfaces

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The federal government also supports a policy of minimizing the destruction, loss, or degradation of wetlands. Executive Order 11990 (May 24, 1977) requires that each federal agency take action to minimize the destruction, loss, or degradation of wetlands and to preserve and enhance the natural and beneficial values of wetlands. The USACE regulates the discharge of dredged or fill material, including but not limited to grading, placing of rip-rap for erosion control, pouring concrete, laying sod, and stockpiling excavated material. Activities that generally do not involve a regulated discharge, if performed specifically in a manner to avoid discharges, include driving pilings, drainage channel maintenance, temporary mining and farm/forest roads, and excavating without stockpiling.

In California, the term "waters of the United States," indicates resources that are subject to jurisdiction of the CWA as defined by the 2015 Clean Water Rule:[13]

(1) All waters which are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;

(2) All interstate waters, including interstate wetlands;

(3) The territorial seas;

(4) All impoundments of waters otherwise identified as waters of the United States under this section;

(5) All tributaries, of waters identified in paragraphs (1) through (3) of this section;

(6) All waters adjacent to a water identified in paragraphs (1) through (5) of this section, including wetlands, ponds, lakes, oxbows, impoundments, and similar waters;

(7) Western vernal pools, where they are determined, on a case-specific basis, to have a significant nexus to a water identified in paragraphs (1) through (3). Vernal pool identified in this paragraph shall not be combined with waters identified in paragraph (6) when performing a significant nexus analysis. If waters identified in this paragraph are also an adjacent water under paragraph (6), they are an adjacent water and no case-specific significant nexus analysis is required.

Wetlands are a subset of waters of the United States and receive protection under Section 404 of the CWA. The federal definition of wetlands is the following:

> Wetlands are areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.

The Section 404(b)(1) Guidelines regarding the implantation of Section 404 of the CWA mandate that filling wetlands be avoided unless it can be demonstrated that the project is the least

[13] United States Environmental Protection Agency (EPA) and United States Army Corps of Engineers (USACE). Clean Water Rule: Definition of "Waters of the United States," 80 Federal Regulation 37053 (June 29, 2015).

environmentally damaging practicable alternative.[14] The USACE has primary federal responsibility for administering regulations that concern waters and wetlands.

Section 303—Water Quality Standards and Total Maximum Daily Loads

Section 303(c)(2)(b) of the CWA requires states to adopt water quality standards for all surface waters of the United States based on the water body's designated beneficial use. Where multiple uses exist, water quality standards must protect the most sensitive use. Water quality standards are typically numeric, although narrative criteria based on biomonitoring methods may be employed where numerical standards cannot be established or where they are needed to supplement numerical standards.

CWA Section 303(d) requires States and authorized Native American tribes to develop a list of water quality impaired segments of waterways. The list includes waters that do not meet water quality standards necessary to support a waterway's beneficial uses even after the minimum required levels of pollution control technology have been installed. Listed water bodies are to be priority ranked for development of a Total Maximum Daily Load (TMDL). A TMDL is a calculation of the total maximum daily load (amount) of a pollutant that a water body can receive on a daily basis and still safely meet water quality standards. The TMDLs include waste load allocations for urban stormwater runoff as well as municipal and industrial wastewater discharges, with allocations apportioned for individual Municipal Separate Storm Sewer Systems (MS4s) and wastewater treatment plants, including/not including those in Contra Costa County. For stormwater, load reductions would be required to meet the TMDL waste load allocations within the 20 years required by the TMDLs.

The EPA, State Water Board, and RWQCBs are responsible for establishing TMDL waste load allocations and incorporating approved TMDLs into water quality control plans, NPDES permits, and Waste Discharge Requirements (WDRs) in accordance with a specified schedule for completion. The San Francisco Bay RWQCB adopted TMDLs that apply to the City of Pleasant Hill.

Section 401—Water Quality Certification

Section 401 of the CWA requires compliance with State water quality standards for actions within State waters. Under CWA Section 401, an applicant for a Section 404 permit (to discharge dredged or fill material into waters of the United States) must first obtain a certification from the appropriate agency stating that the discharge is consistent with the State's water quality standards and criteria. In California, the State Water Board delegates authority to either grant water quality certification or waive the requirements to the nine RWQCBs. The plan area is located within the San Francisco Bay RWQCB's jurisdiction.

Section 402—National Pollution Discharge Elimination System Permit

The RWQCBs administer the NPDES stormwater permitting program, under Section 402(d) of the federal CWA, on behalf of the EPA. The objective of the NPDES program is to control and reduce levels of pollutants in water bodies from discharges of municipal and industrial wastewater and stormwater runoff. CWA Section 402(d) establishes a framework for regulating nonpoint-source stormwater discharges (33 USC 1251). Under the CWA, discharges of pollutants to receiving water

[14] For project permits issued under the CWA pursuant to a nationwide permit, the analysis of the least environmentally damaging practicable alternative has already been completed by the federal government.

are prohibited unless the discharge complies with an NPDES permit. The NPDES permit specifies discharge prohibitions, effluent limitations, and other provisions, such as monitoring deemed necessary to protect water quality based on criteria specified in the National Toxics Rule, the California Toxics Rule, and the basin plan.

Section 404—Discharge of Dredge and Fill of Waters of the United States Permit

Section 404 of the CWA regulates temporary and permanent fill and disturbance of wetlands and waters of the United States. Under Section 404, the discharge (temporary or permanent) of dredged or fill material into waters of the United States, including wetlands, typically must be authorized by the USACE through either the Nationwide Permit (general categories of discharges with minimal effects) or an Individual Section 404 Permit.

National Flood Insurance Program

FEMA oversees floodplains and administers the National Flood Insurance Program (NFIP) adopted under the National Flood Insurance Act of 1968. This program makes federally subsidized flood insurance available to property owners within communities who participate in the program. FEMA identifies areas of special flood hazard (those subject to inundation by a 100-year flood) through regulatory flood maps titled Flood Insurance Rate Maps (FIRMs). The NFIP mandates that development cannot occur within a special flood hazard area (typically the 100-year floodplain) if that development results in more than a 1-foot increase in flood elevation. In addition, development is not allowed in delineated floodways within the regulatory floodplain.

National Pollutant Discharge Elimination Program

Pursuant to Section 402 of the CWA and the Porter-Cologne Water Quality Control Act, municipal stormwater discharges in the City of Pleasant Hill are regulated under the San Francisco Bay Region Municipal Regional Stormwater Issuing Waste Discharge Requirements and NPDES Permit, Order No. R2-2015-0049, NPDES Permit No. CAS612008, adopted October 14, 2009, and revised November 19, 2015.

The City of Pleasant Hill is a member agency of the CCCWP, which assists municipalities and other agencies in Contra Costa County with implementation of the NPDES Permit. NPDES Provision C.3 addresses post-construction stormwater management requirements for new development and redevelopment projects that add and/or replace 10,000 square feet or more of impervious area. Provision C.3 requires the incorporation of site design, source control, and stormwater treatment measures into development projects in order to minimize the discharge of pollutants in stormwater runoff and non-stormwater discharges and to prevent increases in runoff flows. Low Impact Development (LID) methods are to be the primary mechanism for implementing such controls. NPDES Provision C.3(g) pertains to hydromodification management requirements. This NPDES Permit provision requires five Control Design Criteria to be implemented: range of flows to control, goodness of fit criteria, allowable low flow rate, standard hydromodification modeling, and alternate hydromodification modeling and design. As noted above, projects disturbing more than 1 acre of land during construction are required to comply with the NPDES Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities, Order No. 2009-0009-DWQ, NPDES

No. CAS000002 (Construction General Permit). The RWQCB regulates Construction General Permit activities at a local level.

To obtain coverage under the Construction General Permit, a project applicant must provide a Notice of Intent, a Storm Water Pollution Prevention Plan (SWPPP), and other documents required by Attachment B of the Construction General Permit. Activities subject to the Construction General Permit include clearing, grading, and disturbances to the ground, such as grubbing or excavation. This permit also covers linear underground and overhead projects such as pipeline installations.

The Construction General Permit uses a risk-based permitting approach and mandates certain requirements based on the project risk level (Level 1, Level 2, or Level 3). The project risk level is based on the risk of sediment discharge and the receiving water risk. The sediment discharge risk depends on project location and timing (such as wet season versus dry season activities). The receiving water risk depends on whether the project would discharge to sediment-sensitive receiving water. The determination of the project risk level would be made by project applicants when the Notice of Intent is filed (and more details of the ultimate timing of the construction activity are confirmed).

The performance standard in the Construction General Permit is that dischargers minimize or prevent pollutants in stormwater discharges and authorized non-stormwater discharges through the use of controls, structures, and Best Management Practices (BMPs). A SWPPP must be prepared by a qualified SWPPP developer that meets the certification requirements in the Construction General Permit. The purpose of the SWPPP is (1) to help identify the sources of sediment and other pollutants that could affect the quality of stormwater discharges, and (2) to describe and ensure the implementation of BMPs to reduce or eliminate sediment and other pollutants in stormwater as well as non-stormwater discharges resulting from construction activity. Operation of BMPs must be overseen by a qualified SWPPP practitioner who meets the requirements outlined in the permit.

National Toxics Rule and California Toxics Rule

In 1992, the EPA promulgated the National Toxics Rule under the CWA to establish numeric criteria for priority toxic pollutants for 14 states to bring all states into compliance with the requirements of CWA Section 303(c)(2)(B). The National Toxics Rule established water quality standards for 42 pollutants not covered under California's statewide water quality regulations at that time. As a result of the court-ordered revocation of California's Statewide basin plans in September 1994, the EPA initiated efforts to promulgate additional federal water quality standards for California. In May 2000, the EPA issued the California Toxics Rule, which includes all the priority pollutants for which the EPA has issued numeric criteria not included in the National Toxics Rule.

Executive Order 11988

Executive Order 11988, "Floodplain Management," directs all federal agencies to avoid, to the extent possible, long- and short-term adverse impacts of occupancy and modification of floodplains, and to avoid supporting development in a floodplain either directly or indirectly wherever there is a practicable alternative. Title 23 of the Code of Federal Regulations 650, Subpart A, "Location and Hydraulic Design of Encroachment on Floodplains" specifies applicable floodplain regulations.

FEMA also administers the NFIP, a federal program that enables property owners in participating communities to purchase insurance as protection against flood losses in exchange for state and community floodplain management regulations that reduce future flood damages.

State

Porter-Cologne Water Quality Control Act

Section 13260(a) of the Porter-Cologne Water Quality Control Act (contained in the California Water Code) requires any person discharging waste or proposing to discharge waste, other than to a community sewer system, within any region that could affect the quality of the waters of the State (all surface and subsurface waters) to file a report of waste discharge. The discharge of dredged or fill material may constitute a discharge of waste that could affect the quality of waters of the State. The waterway within the plan area is likely considered waters of the State, which are protected under this Act.

Historically, California relied on its authority under Section 401 of the CWA to regulate discharges of dredged or fill material to waters of the United States. That section requires an applicant to obtain "water quality certification" from the State Water Board through its RWQCBs to ensure compliance with State water quality standards before certain federal licenses or permits may be issued. The permits subject to Section 401 include permits for the discharge of dredged or fill materials (CWA § 404 permits) issued by the USACE. The RWQCB's typically waived waste discharge requirements under the Porter-Cologne Water Quality Control Act for projects or plans that also required Section 401 certification. Following the U.S. Supreme Court's decision *Rapanos v. United States,* 547 U.S. 715 (2006) which limited the jurisdiction of wetlands under the CWA, the RWQCB's now generally rely on the report of waste discharge process to regulate discharges into waters of the State.

California Code of Regulations (Wetlands and Waters Definition)

The State Water Board indicates that no single accepted definition of wetlands exists at the State level, and that the RWQCBs may have different requirements and levels of analysis with regard to the issuance of water quality certifications. Generally, an area is a wetland if, under normal circumstances:

(1) the area has continuous or recurrent saturation of the upper substrate caused by groundwater, or shallow surface water, or both;

(2) the duration of such saturation is sufficient to cause anaerobic conditions in the upper substrate; and

(3) the area's vegetation is dominated by hydrophytes or the area lacks vegetation.

Under California State law, waters of the State means "any surface water or groundwater, including saline waters, within the boundaries of the state." As such, water quality laws apply to both surface water and groundwater. After the U.S. Supreme Court decision in *Solid Waste Agency of Northern Cook County v. U.S. Army Corps of Engineers* (53 USC 159), the Office of Chief Counsel of the State Water Board released a legal memorandum confirming the State's jurisdiction over isolated wetlands. The memorandum stated that under the California Porter-Cologne Water Quality Control

Act (Porter-Cologne), discharges to wetlands and other waters of the State are subject to State regulation, and this includes isolated wetlands. In general, the State Water Board regulates discharges to isolated waters in much the same way as it does for waters of the United States, using Porter-Cologne rather than CWA authority.

Industrial General Stormwater Permit

The Statewide Stormwater NPDES permit for general industrial activity (Order 2014-0057-DWQ, superseding Order 97-03-DWQ) regulates discharges associated with 10 broad categories of industrial activities, such as operation of wastewater treatment works, and with recycling facilities. The industrial general permit requires the implementation of Best Available Technology Economically Achievable and Best Conventional Pollutant Control Technology to achieve performance standards. The permit also requires development of a SWPPP that identifies the site-specific sources of pollutants and describes the measures at the facility applied to reduce stormwater pollution. A monitoring plan is also required.

NPDES Stormwater Permit

In November 1990, the EPA published regulations establishing NPDES permit requirements for municipal and industrial stormwater discharges. Phase I of the permitting program applied to municipal discharges of stormwater in urban areas where the population exceeded 100,000 persons. Phase II of the NPDES stormwater permit regulations, which became effective in March 2003, required that NPDES permits be issued for construction activity for projects disturbing 1–5 acres. Phase II of the municipal permit system (known as the NPDES General Permit for Small MS4s, Order No. 2003-0005-DWQ as amended by 2013-0001-DWQ) required small municipalities of fewer than 100,000 persons to develop stormwater management programs. This permit authorizes discharges of stormwater and some categories of non-stormwater that are not "significant contributors of pollutants."

Provision C.3 in the Municipal Regional Permit requires site designs for new developments and redevelopments to minimize the area of new roofs and paving and treat runoff, and in some cases, control the rates and durations of site runoff. Where feasible, pervious surfaces should be used instead of paving so that runoff can infiltrate to the underlying soil. Runoff should be dispersed to landscaping where possible. Remaining runoff from impervious areas must be treated using bioretention. In some developments, the rates and durations of site runoff must also be controlled.

The C.3 requirements are separate from, and in addition to, requirements for erosion and sediment control and for pollution prevention measures during construction. In addition, project applicants must execute agreements to allow municipalities to verify that stormwater treatment and flow-control facilities that are approved as part of new development are maintained in perpetuity.

California Toxics Rule and State Implementation Policy

The California Toxics Rule, presented in 2000 in response to requirements of EPA's National Toxics Rule, establishes numeric water quality criteria for approximately 130 priority pollutant trace metals and organic compounds. The California Toxics Rule criteria are regulatory criteria adopted for inland surface waters, enclosed bays, and estuaries in California that are on the CWA Section 303(c) list for contaminants. The California Toxics Rule includes criteria for the protection of aquatic life and

human health. Human health criteria (water- and organism-based) apply to all waters with a Municipal and Domestic Water Supply beneficial use designation as indicated in the basin plans. The Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California, also known as the State Implementation Policy, was adopted by the State Water Board in 2000. It establishes provisions for translating the California Toxics Rule criteria, National Toxics Rule criteria, and basin plan water quality objectives for toxic pollutants into:

- NPDES permit effluent limits;
- Effluent compliance determinations;
- Monitoring for 2,3,7,8-tcdd (dioxin) and its toxic equivalents;
- Chronic (long-term) toxicity control provisions;
- Site-specific water quality objectives; and
- Granting of effluent compliance exceptions.

The goal of the State Implementation Plan is to establish a standardized approach for permitting discharges of toxic effluent to inland surface waters, enclosed bays, and estuaries throughout the State.

Regional

San Francisco Bay Regional Water Quality Control Plan

The San Francisco Bay RWQCB implements the Basin Plan, a master policy document for managing water quality in the region. The Basin Plan establishes beneficial water uses for waterways and water bodies within the region. The San Francisco Bay RWQCB has jurisdiction over the City of Pleasant Hill. Individual RWQCBs function as the lead agencies responsible for identifying, monitoring, and cleaning up leaking underground storage tanks (USTs). Storage of hazardous materials in USTs is regulated by the State Water Board, which oversees all nine of the RWQCBs.

Contra Costa Clean Water Program

The CCCWP is within the jurisdiction of the San Francisco Bay RWQCB and Central Valley RWQCB. The CCCWP works to protect local creeks, reservoirs, watersheds, and San Francisco Bay from contamination and pollution required by federal and State clean water regulations.

Local

Pleasant Hill 2003 General Plan

Safety and Noise Element

The Pleasant Hill 2003 General Plan establishes goals and implementing policies associated with hydrology and water quality that are relevant to this analysis as follows:

- **Goal 1**: Minimize potential for serious flooding and drainage problems.
- **Policy 1A**: Maintain and upgrade the city drainage system.
- **Policy 1B**: Reduce flood damage potential in areas known to be prone to flooding.
- **Policy 1C**: Maintain and improve the ability of the Fire District and the Police, Maintenance and Engineering Departments to respond to flood emergencies.

- **Program 1.1**: Continue to clear drainage systems regularly (inlets, culverts, swales, creeks, and channels), both public and private, to remove debris buildup that can exacerbate flooding impacts.
- **Program 1.2**: Develop and adopt a City Master Drainage Plan
- **Program 1.3**: Install and maintain drainage system improvements as scheduled in the CIP.
- **Program 1.4**: Use part of the former Oak Park Elementary School property or other sites south of Gregory Lane, where feasible, for flood detention, or allow uses that include flood detention features.
- **Program 1.5**: Enforce federal regulations that control placement of structures in floodplains, and maintain appropriate standards for development in flood-prone and poorly drained areas.
- **Program 1.6**: Require mitigation for any development that could create or significantly worsen flood or drainage problems.
- **Program 1.7**: Adopt a no-net-fill policy or limit on impervious surface as a percentage of lot size and require new development to not have any increase in stormwater runoff.
- **Program 1.8**: Augment existing Geographic Information System and other data regarding low-lying areas with information obtained during storms
- **Program 1.9**: Develop a prioritized list of proposed capital improvement projects for low-lying, flood-prone areas, and seek funding for those projects.
- **Program 1.10**: Adopt standards regulating expansion or new development in the 100-year floodplain.
- **Program 1.11**: Train Fire and Police personnel to a level appropriate to their positions and responsibilities to respond to flood emergencies.

The 2003 City of Pleasant Hill General Plan identifies policies and programs, such as Policy 1B and Programs 1.2, 1.3 and 1.9 for the funding and implementation of improvements to the City's storm drainage system as part of the City's Capital Improvement Program (CIP). In accordance with the City's General Plan policies, the City adopted by Resolution 37-18, the Fiscal Year (FY) 2018-2023 Capital Improvement Plan (2018 CIP) after the voters approved Measure K. The 2018-2023 CIP provides for the installation of new storm drain facilities or the upgrade of existing storm drain facilities to address locations of poor drainage or areas in the City with localized flooding problems (see page MK-2 of the FY 2018/2023 CIP).

Pleasant Hill Municipal Code—Flood Damage Prevention

The Pleasant Hill Municipal Code sets forth a code of ordinances associated with hydrology and water quality. Chapter 15.15, Flood Damage Prevention, of the Pleasant Hill Municipal Code details measures to prevent and reduce flood damage as well as standards for construction, utilities, subdivisions, and homes. In addition, the City of Pleasant Hill regularly cleans and maintains drainage channels to clear debris.

City Flood Hazard Service

The City of Pleasant Hill website contains information about flooding in the City. The City has identified localized flooding hazards that are caused by a creek overtopping its bank, clogged catch basins or storm drains, and poor storm drainage. The City Engineering Division's, Certified

Floodplain Manager, can provide residents with a review of their property's specific flood problems and explain ways to reduce flooding potential or prevent flood damage.

Pleasant Hill Stormwater Runoff Pollution Control Ordinance Code

Chapter 15.05 of the Pleasant Hill Municipal Code addresses stormwater management and runoff. Consistent with Chapter 15.05, every development project must submit a Stormwater Control Plan that meets the criteria of the most recent version of the guidebook to reduce stormwater. The Stormwater Control Plan would outline all stormwater management facilities, how those facilities would be maintained, and the costs to implement the facilities.

3.8.4 - Impacts and Mitigation Measures

Significance Criteria

According to 2019 California Environmental Quality Act (CEQA) Guidelines Appendix G, to determine whether impacts related to hydrology and water quality are significant environmental effects, the following questions are analyzed and evaluated. Would the proposed plan:

a) Violate any water quality standards or waste discharge requirements?

b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the proposed plan may impede sustainable groundwater management of the basin?

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:
   i) result in substantial erosion or siltation on- or off-site;
   ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;
   iii) 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; or
   iv) impede or redirect flood flows?

d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to inundation associated with the proposed plan?

e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Approach to Analysis

Impacts related to hydrology and water quality were determined by reviewing information regarding regional and local hydrology, climate, topography, and geology contained in the Pleasant Hill 2003 General Plan and Pleasant Hill 2003 General Plan EIR, San Francisco Bay RWQCB Basin Plan, FEMA FIRMs, the plan-specific Floodplain Evaluation Report, and plan-specific utility plans. Evaluation of impacts is based on comparison of existing conditions to the Civic Project and Residential Project built condition, such as changes in impervious area and facilities located within flood zones.

Specifically, the impact evaluation focuses on effects on surface and groundwater quality, groundwater supply, and drainage (in terms of erosion, siltation, flooding, stormwater system exceedance, and polluted runoff). Water quality conditions are compared with water quality standards and WDRs by identifying potential contaminants and pollution pathways, amount of impervious area, and runoff treatment requirements. Finally, as part of the analysis, inundation and flooding on the Civic Project site and Residential Project site are assessed by reviewing potential inundation zone elevations relative to the final grade elevations of planned facilities and features for each project.

Specific Thresholds of Significance

For purposes of this analysis, the following thresholds are used to evaluate the significance of Hydrology and Water Quality impacts resulting from implementation of the proposed plan.

- Violate any water quality standards or waste discharge requirements established by a regulatory body with jurisdiction over the plan area.
- Deplete groundwater supplies or interfere with groundwater recharge such that the proposed plan would impede or obstruct goals and policies of a groundwater management plan.
- Alter an existing drainage pattern through alteration of the course of a stream or river or increased impervious surfaces and resulting in erosion, siltation, or flooding on or off-site.
- Create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.
- Expose people to pollutants due to inundation related to flooding, tsunami, or seiche.
- Conflict with a water quality control plan or sustainable groundwater management plan such goals would be obstructed.

Impact Evaluation

Surface and Groundwater Quality

Impact HYD-1:	**The proposed plan would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality.**

Construction

Civic Project

Civic Project construction activities for the library, athletic fields, and proposed storm drainage improvements would expose soils on the Civic Project site to potential water erosion and construction equipment-related pollutants. Runoff from graded areas could carry eroded soils and pollutants into the storm drainage systems and into Grayson Creek, increasing sedimentation and degrading downstream water quality. These sediments could also be carried downstream and discharged into the Suisun Bay leading to the San Francisco Bay and Pacific Ocean, degrading surface water quality, or allowed to seep into the associated groundwater table. This would represent a potentially significant construction impact related to surface and groundwater quality.

Given that proposed construction would disturb more than one acre of land, the Civic Project would be required to comply with the terms of the Construction General Permit, which require the preparation and implementation of a SWPPP that includes BMPs to ensure reduction of pollutants from construction activities that could potentially enter surface waters. Additionally, implementation of the SWPPP would also prevent pollutants from entering the Ygnacio Valley Groundwater Basin by preventing pollutants from moving off-site. Although construction activities have the potential to generate increased sedimentation, compliance with applicable policies and regulations would minimize the potential to degrade water quality in downstream water bodies to the maximum extent possible. As a result, construction-related project impacts related to surface and groundwater and respective water quality would be less than significant.

Residential Project

Residential Project construction would expose soils on the Residential Project site to potential water erosion and construction equipment-related pollutants. If not properly contained, runoff from graded areas could carry eroded soils and pollutants into the storm drainage systems, increasing sedimentation and degrading downstream water quality.

Given that proposed construction would disturb more than one acre of land, the Residential Project would be required to comply with the terms of the Construction General Permit, which require the preparation and implementation of a SWPPP that includes BMPs to ensure reduction of pollutants from construction activities potentially entering surface waters. Additionally, implementation of the SWPPP would also prevent pollutants from entering the Ygnacio Valley Groundwater Basin by preventing pollutants from moving off-site. Although construction activities have the potential to generate increased sedimentation, compliance with applicable policies and regulations of would minimize the potential to degrade water quality in downstream water bodies to the maximum extent possible. As a result, construction-related project impacts related to surface and groundwater and respective water quality would be less than significant.

Operation

Civic Project

The Civic Project site is located in an urbanized area with a mix of impervious and pervious surfaces. The Civic Project would increase impervious surfaces and in turn generate stormwater runoff, which may carry pollutants such as pesticides, fertilizers, and deposits of fluids and metals from motor vehicles into adjacent Grayson Creek or allow seepage of such pollutants into the associated groundwater table (Exhibit 3.8-3 and Exhibit 3.8-4). This would represent a potentially significant operational impact related to surface and groundwater quality.

The Civic Project would be required to comply with the City of Pleasant Hill NPDES program and the Clean Water Program, and all City Code ordinances related to stormwater pollution. Pleasant Hill Municipal Code, Chapter 15.05.050, would require a stormwater control plan that meets the most recent version of the guidebook. Furthermore, Pleasant Hill Municipal Code, Chapter 15.05.080, requires post-construction maintenance of stormwater management facilities. Chapter 17.35.020 requires stormwater drainage systems to protect off-site properties from increased runoff created by

development. Therefore, operation-related project impacts related to surface and groundwater and respective water quality would be less than significant.

Residential Project

The Residential Project site is located in an urbanized area with a mix of impervious and pervious surfaces. The Residential Project would decrease impervious surfaces from existing conditions and would include bioretention features to retain stormwater on site and provide pre-treatment of surface waters before being discharged into the storm drainage system.

The Residential Project would be required to comply with the City of Pleasant Hill NPDES program and the Clean Water Program, and all City Code ordinances related to stormwater pollution. Pleasant Hill Municipal Code, Chapter 15.05.050, would require a stormwater control plan that meets the most recent version of the guidebook. Furthermore, Pleasant Hill Municipal Code, Chapter 15.05.080, requires post-construction maintenance of stormwater management facilities. Chapter 17.35.020 requires stormwater drainage systems to protect off-site properties from increased runoff created by development. Therefore, operation-related project impacts related to surface and groundwater and respective water quality would be less than significant.

Level of Significance

Less Than Significant (Civic Project and Residential Project)

Groundwater Supply/Recharge

Impact HYD-2:	**The proposed plan would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the proposed plan may impede sustainable groundwater management of the basin.**

Construction

Residential Project and Civic Project

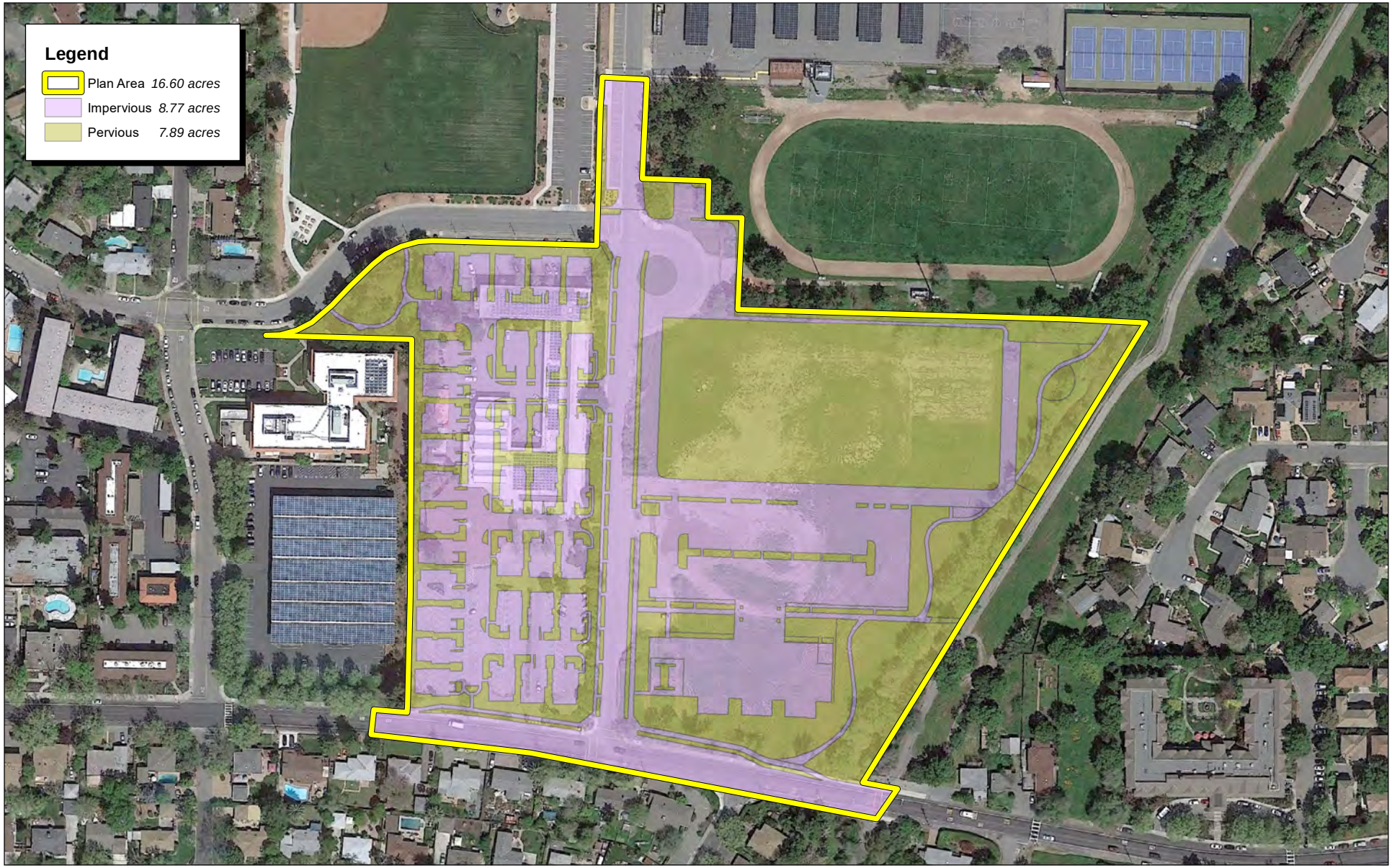
Potential impacts related to depletion of groundwater supplies or interference with groundwater recharge are limited to operational impacts. No respective construction impacts would occur in the plan area because construction activities would not involve the use of groundwater.

Operation

Civic Project and Residential Project

As seen in Exhibit 3.8-3, the plan area is covered by 10.84 acres of pervious surfaces (undeveloped land and Creek Corridor) and 5.83 acres of impervious surfaces (existing Contra Costa County Library, administrative office buildings, and paved parking and roadway surfaces).

Implementation of the proposed plan would remove 253,899 square feet of impervious surfaces and would construct 382,054 square feet of new impervious surfaces, for a net increase of 128,155 square feet of impervious surfaces. The plan area's near-surface soils have a low to moderate permeability value for stormwater infiltration unless subdrains are installed. In addition, the shallow groundwater depth would make stormwater infiltration at this site very difficult. As a result, implementation of the Residential Project and Civic Project would not be expected to impact groundwater supplies or recharge due to the low possibility of stormwater infiltration within the plan area.



Source: Google Earth Pro

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210 105 0 210
Feet

Exhibit 3.8-4
Proposed Pervious Versus Impervious Surfaces

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Neither the Civic Project nor the Residential Project would significantly impact groundwater recharge rate due to the existing soils and groundwater depth on both sites. As discussed in Section 3.15, Utilities and Service Systems, the City would be able to provide adequate water services to the plan area and the rest of the City during normal, dry, and multiple dry years under its Water Conservation Plan, and no groundwater would be used. Thus, neither the Civic Project nor the Residential Project would interfere substantially with groundwater supply, recharge, or groundwater management. Therefore, impacts related to groundwater recharge and supply would be less than significant.

Level of Significance

Less Than Significant (Civic Project and Residential Project)

Drainage—Leading to Erosion/Siltation, Flooding, Additional Sources of Polluted Runoff, or Impedance of Flood Flows

Impact HYD-3: **The proposed plan could substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:**

- **i) result in substantial erosion or siltation on- or off-site;**
- **ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;**
- **iii) 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; or**
- **iv) impede or redirect flood flows?**

Construction

Civic Project

Erosion and Siltation

The Civic Project would have a significant impact if it were to substantially alter the existing drainage pattern of the library and playfields site in a manner that would result in substantial erosion or siltation on- or off-site. Such drainage effects could occur from grade changes at the Civic Project site, exposure of soils for periods of time during stormwater discharge, or alterations to creek beds. These types of changes would have a potentially significant impact on on-site drainage patterns.

The Civic project would involve construction on a site with 2.09 acres of impervious surfaces and 9.54 acres of pervious surfaces.

In addition, the Civic Project site's eastern boundary is adjacent to Grayson Creek. Construction activity could result in substantial erosion or siltation due to drainage pattern alteration and result in polluted runoff entering Grayson Creek. Construction of the upgraded outfalls within Grayson Creek could also cause erosion and sedimentation impacts. This would represent a potentially significant impact.

Implementation of the Civic Project would increase the amount of impervious surfaces from 2.09 to 5.74 acres. The Civic Project includes planned storm drain improvements to accommodate storm waters in accordance with C3 requirements. The Civic Project improvements would enhance the

existing storm drain system through upsizing and replacement of existing drainage lines to mimic and better accommodate storm flows compared to existing conditions. The Civic Project also includes the upgrading of existing outfalls in Grayson Creek, and provision of rip-rap at the outfalls for energy dissipation as part of the City's CIP program for upgrading storm drainage facilities.

The Civic Project would be required to implement a SWPPP as part of its Construction General Permit. The SWPPP is designed to ensure that erosion, siltation, and flooding are prevented or minimized to the maximum extent feasible during construction through the implementation of standard best management practices. Therefore, the construction impact related to alteration of drainage pattern and resulting in erosion or siltation would be less than significant.

Increased Runoff Resulting in Flooding

Impacts related to increased impervious surfaces are limited to operational impacts.

Additional Source of Polluted Runoff or Exceedance of Storm Drainage System Capacity

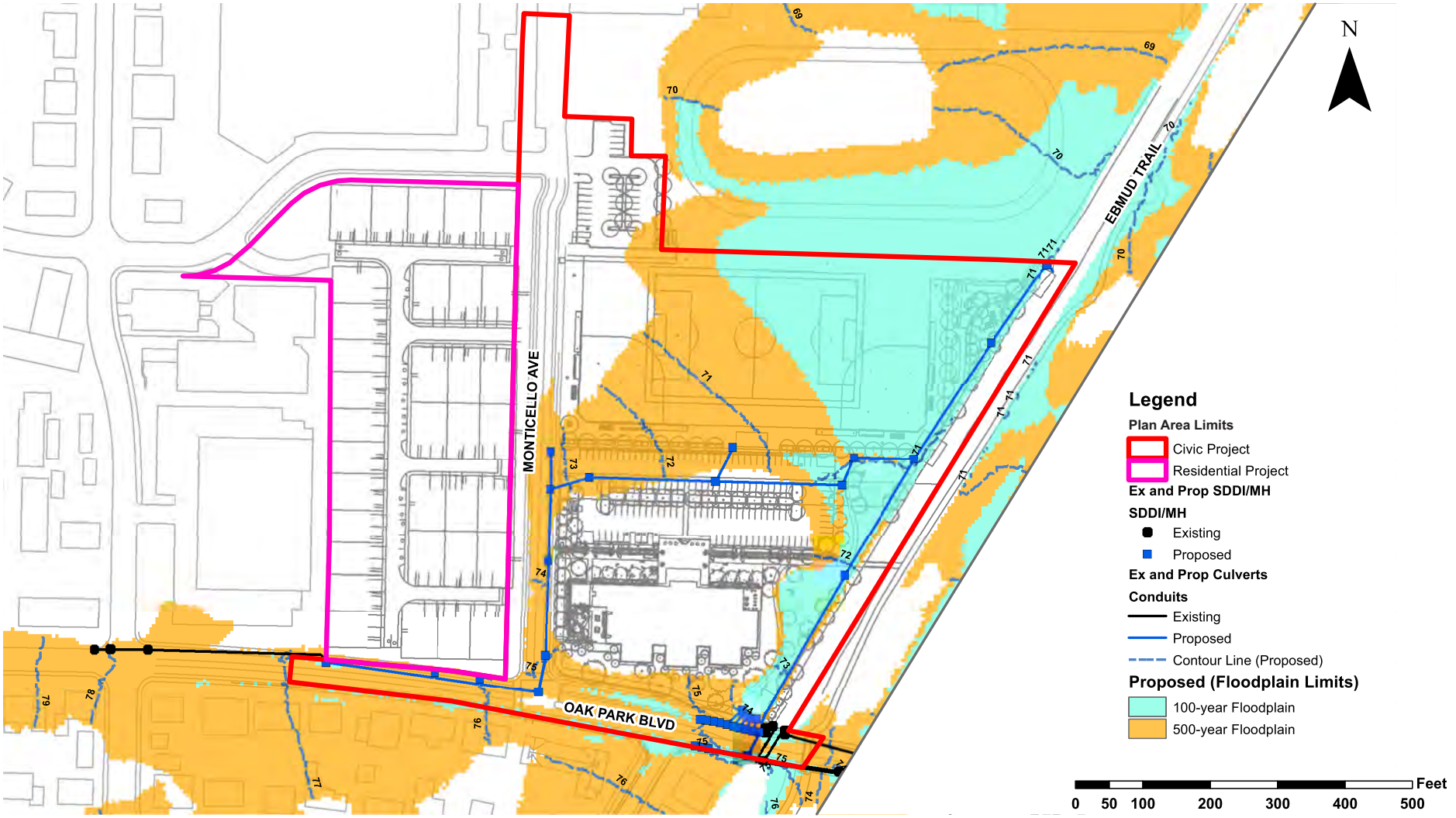
As discussed in Chapter 2, Project Descriptions, the Civic Project includes the creation of expanded storm drain capacity along Oak Park Boulevard to convey stormwater that currently sheet flows across the Civic Project site, as well as the creation of bioretention basins capable of holding runoff during storm events to prevent any exacerbation of flooding on- or off-site in accordance with the City's CIP and General Plan. In addition to improving existing drainage conditions on the Civic Project site, the Civic Project includes implementation of the stormwater system improvements goal/objective in the CIP to address existing flooding conditions. Consequently, the Civic Project would not cause an exceedance of storm drain capacity or create additional sources of runoff. The Civic Project improvements to the storm drainage system would address the existing localized flooding, provide additional capacity for the Civic Project development.

Therefore, the construction impact related to additional sources of polluted runoff or exceedance of storm drainage system capacity that would be less than significant.

Impedance or Redirection of Flood Flows

The Civic Project includes substantial modifications to improve the conveyance capacity for stormwater and to address flooding that is currently experienced across the Civic Project site and in the plan area during storm events. The drainage pattern for the proposed 100-year floodplain would maintain the general direction of flow towards Grayson Creek.

The Civic Project would balance cut and fill volumes to minimize fill inside the floodplain to the best extent practicable (Exhibit 3.8-5). As discussed in Section 3.15, Utilities and Service Systems, the Civic Project also includes new storm drain systems to replace the existing inadequately sized 24-inch drain in Oak Park Boulevard with a 36-inch line, and to provide a new 36-inch storm drain through the Civic Project site in accordance with the City's CIP. The drainage system will include drainage inlets in the new library parking lot that will allow overflow from the system to be directed to and stored within the new athletic fields. This overflow feature will be utilized for runoff generated during larger or multiple back-to-back rain events.



Source: WRECO, 2019.

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Exhibit 3.8-5
Proposed 100-year and 500-year Floodplains

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Mitigation Measure (MM) HYD-3 requires preparation of a Final Drainage Plan that reflects the design recommendations of the Floodplain Evaluation Report. Implementation of the Civic Project proposed storm drainage features in accordance with these design recommendations would ensure that the proposed library would be constructed above a 100-year floodplain. Additionally, the improvements would retain the existing drainage pattern while creating appropriate area to store stormwater overflow, such as the ballfields and bioretention areas adjacent to Grayson Creek. Furthermore, water depths at the proposed athletic fields would be designed to accommodate the floodplain stormwater storage volume that would be displaced by the proposed library development, in accordance with the recommendations of the Floodplain Evaluation Report.[15] Therefore, impacts would be less than significant with implementation of MM HYD-3.

Residential Project

Erosion and Siltation

The Residential Project would involve construction on a site that consists of 3.74 acres of impervious surfaces and 1.30 acres of pervious surfaces. The Residential Project would have a significant impact if it were to substantially alter the existing drainage pattern of the site in a manner that would result in substantial erosion or siltation on- or off-site. Such drainage effects could occur from grade changes at the Residential Project site or exposure of soils during storm events that lead to erosion and off-site deposition. These types of changes could have a potentially significant impact on drainage patterns on the Residential Project site.

The Residential Project would be required to implement a SWPPP as part of its notice of intent to proceed under the Construction General Permit. The SWPPP is designed to ensure that erosion, siltation, and flooding are prevented or minimized to the maximum extent feasible during construction. A bioretention basin will control substantial erosion and sedimentation on-site for the Residential Project and would reduce flows and retain stormwater post construction such that it would not exacerbate runoff. Therefore, the construction impact related to alteration of drainage pattern and resulting in erosion or siltation would be less than significant.

Increased Runoff Resulting in Flooding

Impacts related to increased impervious surfaces are limited to operational impacts.

Additional Source of Polluted Runoff or Exceedance of Storm Drainage System Capacity

The Residential Project would be required to implement a SWPPP as part of its Construction General Permit to ensure that additional sources of polluted runoff would be prevented during construction. The biotreatment swales actually provide stormwater treatment and has capacity to retain flows on the Residential Project site thus limiting the discharge into the City's stormwater system so that the Residential Project results in no net increase in surface flows. Thus, construction of the Residential Project would not create or contribute runoff water that would provide substantial additional sources of polluted runoff.

[15] WRECO. Floodplain Evaluation Report. January 2019.

Impedance or Redirection of Flood Flows

The proposed Residential Project storm drainage system would connect to the City's stormwater drainage system that would serve other existing, approved, and planned development in this watershed. The Residential Project also includes biotreatment swales that would provide retention and treatment of stormwater runoff prior to entering the City's storm drainage system. As the Residential Project would reduce the amount of impervious surfaces across the site, and would also incorporate appropriately sized bio-retention areas for pre-treatment of storm waters in accordance with C.3 guidelines, the Residential Project would not result in an increase in surface runoff or increased flooding conditions that could impeded or redirect flood flows.

Operation

Erosion and Siltation

Civic Project

The Civic Project is located in an urbanized area and primarily consists of pervious surfaces. Development of the Civic Project would increase impervious surfaces compared to existing conditions. The net increase in impervious surfaces with project implementation would be approximately 3.65 acres. Operation of the Civic Project could result in increased amounts of stormwater runoff. However, the Civic Project would be required to comply with the City of Pleasant Hill NPDES program and Clean Water Program, and all relevant provisions of the municipal code related to stormwater pollution, including the provision of appropriately sized bio-retention areas for pre-treatment of storm waters in accordance with C.3 guidelines.

Residential Project

The Residential Project is located in an urbanized area and primarily consists of impervious surfaces. Development of the Residential Project would decrease impervious surfaces compared to existing conditions. The net decrease in impervious surfaces at the Residential Project site with implementation of the Residential Project would be approximately 0.71 acres. Thus, the Residential Project operation would result in decreased amounts of stormwater runoff. Because the Residential Project would disturb more than 1 acre of land, it would be required to comply with the City of Pleasant Hill NPDES program and Clean Water Program, and all relevant provisions of the municipal code related to stormwater pollution, including the provision of appropriately sized bio-retention areas for pre-treatment of storm waters in accordance with C.3 guidelines.

Pursuant to Pleasant Hill Municipal Code, Section 15.05.050, all development projects must submit a stormwater control plan that meets the most recent version of the guidebook. Section 15.05.080 establishes post-construction requirements that would require maintenance of stormwater management facilities. In addition, Section 17.35.020 would require stormwater drainage systems provide protection for off-site properties from increased runoff created by development. Therefore, operational impacts related to alteration of drainage pattern resulting in erosion or siltation would be less than significant.

Increased Runoff Resulting in Flooding, Exceedance of Storm Drainage Capacity, or Redirection of Flood Flows

Civic Project

As discussed above under construction, the Civic Project includes substantial improvements that would address and correct the flooding that currently occurs on the Civic Project site and in other existing low-lying areas in the plan area. The proposed increase in impervious surfaces is accounted for in the design of the proposed storm drainage system and therefore, operation of the Civic Project would not result in any increase in flooding, exceedance of storm drainage capacity, or impedance or redirection of flood flows.

The improved stormwater system includes bioretention areas designed to reduce runoff volume and pollutants from entering nearby waterways, in accordance with CCCWP guidelines and Provision C.3 in the Municipal Regional Permit. Furthermore, compliance with the City of Pleasant Hill Clean Water Program and Stormwater Runoff Pollution Control Ordinance Code would ensure that operation of the Civic Project would not create runoff that exceeds the capacity of existing or planned stormwater drainage systems or provide sources of stormwater or polluted runoff. Therefore, the operational impact related to additional sources of polluted runoff would be less than significant.

The plan area is not located near the ocean, and as such would not be susceptible to inundation from a tsunami. The plan area is not located near a large, enclosed body of water and as such would not be susceptible to inundation from a seiche.

The Civic Project is located in designated flood hazard zones and would be inundated with floodwater during 100-year and 500-year flood events. During the grading and construction phase, the proposed library building would be elevated above the 100-year floodplain using cut and fill in accordance with the recommendations of the Plan Area Floodplain Evaluation Report (Appendix H). With implementation of MM HYD-3, operational impacts related to impedance or redirection of flood flow would be less than significant.

Residential Project

As discussed above, the Residential Project would be constructed above the 100-year base flood elevation. The Residential Project would also result in a net decrease in impervious surfaces. In compliance with C.3 requirements, the Residential Project would also include bioretention basins, which would ensure that there would not be an increase in runoff that could exceed the storm drainage capacity or redirect flood flows. The City's General Plan requires that that the City plan for improvements to address existing and future flooding conditions through its CIP and other citywide storm drainage improvements. As with other planned developments in Pleasant Hill, the Residential Project will be required to contribute its proportionate fair share of the cost of Citywide improvements in drainage area 60 or others to address storm drainage improvements needed to accommodate the Residential Project flows.

Level of Significance Before Mitigation

Potentially Significant (Civic Project)

Less Than Significant (Residential Project)

Mitigation Measures

MM HYD-3 Prepare Final Drainage Plan Prior to Grading

Civic Project: Prior to issuance of grading permits, the contractor for the Civic Project shall submit a drainage plan that incorporates the measures included in the Specific Plan Floodplain Evaluation Report and a Civic Project-specific Floodplain Evaluation Report. These measures shall be coordinated with the City Public Works and Community Development Engineering Division in order to reduce risk related to flooding within a designated floodplain. The drainage plans (including for the separate storm drainage systems and bioretention basin) shall be reviewed by City Public Works and Community Development Engineering Division to ensure that the design will accommodate the 100-year storm event as detailed in the Floodplain Evaluation Report. Three specific performance measures shall be achieved through the implementation of this mitigation measure:

Storm Drainage Systems Design

Two separate storm drainage systems (western and eastern) shall replace the existing single 24-inch drainage systems along Oak Park Boulevard. The western system shall upsize the existing 24-inch storm drain pipe currently located along Oak Park Boulevard on the south side of the proposed residential development. The new eastern system shall upsize the existing 24-inch and 30-inch diameter storm drains to 36-inch and 48-inch diameter pipes, and shall convey runoff eastward to a new outfall at Grayson Creek.

Bioretention Basin Design

A bioretention basin capable of retaining waters from a 100-year storm event shall be installed adjacent to Grayson Creek and east of the proposed library (adjacent to Grayson Creek). The basin shall have sufficient capacity, in combination with the storm drainage systems, to offset the reduced floodplain footprint of the plan area, as outlined in the Floodplain Evaluation Report.

Grading for New Athletic Fields Design

As outlined in the Floodplain Evaluation Report, grading for the athletic fields shall be designed in combination with the storm drainage systems and the bioretention basin to provide additional floodplain storage at the Civic Project site to offset the reduced floodplain footprint on the Civic Project site. Final specifications shall be confirmed as part of the design phase and prior to issuance of a grading permit.

Level of Significance After Mitigation

Less Than Significant with Mitigation (Civic Project)

Less Than Significant (Residential Project)

Risk of Pollutant Release Due to Inundation

Impact HYD-4: **The proposed plan would be located in a flood hazard zone, tsunami, or seiche zone, and risk release of pollutants due to inundation associated with the proposed plan.**

Construction and Operation

Civic Project

As described previously, the Civic Project is located within a flood hazard zone. Implementation of MM HYD-3 would ensure stormwater facilities and improvements at the Civic Project site are installed according to the Final Floodplain Evaluation Report. These improvements would ensure that the operation of the library proposed as part of the Civic Project is located outside of the flood zone and drainage is improved such that the Civic Project would not be at risk of pollutant release.

The Civic Project site is not located near the ocean, and as such would not be susceptible to inundation from a tsunami. The Civic Project site is not located near a large, enclosed body of water and as such would not be susceptible to inundation from a seiche. As a result, the Civic Project site would not be a risk for inundation from flooding, tsunami, or seiche. Therefore, impacts related to risk of pollutant release due to inundation would be less than significant.

Residential Project

The Residential Project would not be located in a flood hazard zone. The Residential Project site is not located near the ocean, and as such would not be susceptible to inundation from a tsunami. The Residential Project site is not located near a large, enclosed body of water and as such would not be susceptible to inundation from a seiche. As a result, the plan area would not be a risk for inundation from flooding, tsunami, or seiche. Therefore, impacts related to risk of pollutant release due to inundation would be less than significant.

Level of Significance Before Mitigation

Potentially Significant (Civic Project)

Less Than Significant (Residential Project)

Mitigation Measures

Implement MM HYD-3 (Civic Project)

Level of Significance After Mitigation

Less Than Significant with Mitigation (Civic Project)

Less Than Significant (Residential Project)

Water Quality Control or Sustainable Groundwater Management Plan Consistency

Impact HYD-5: The proposed plan would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

Construction

Civic Project and Residential Project

Neither the Civic Project nor the Residential Project would conflict with the Contra Costa County Watershed Program and the City of Pleasant Hill NPDES program. Given that proposed construction for each project would disturb more than 1 acre of land, both projects would be required to comply with the terms of the Construction General Permit, which require the preparation and implementation of a SWPPP that includes BMPs to ensure reduction of pollutants from construction activities potentially entering surface waters. Therefore, construction impacts related to a water quality control plan or groundwater management plan consistency would be less than significant.

Operation

Civic Project and Residential Project

Both project sites are located within the Ygnacio Valley Groundwater Basin, and neither has potential for groundwater recharge due to poorly drained soils and shallow groundwater levels. In addition, the Contra Costa Water District (CCWD) would provide potable water to both project sites. The CCWD does not use groundwater as a water source, and as a result, neither the Civic Project nor the Residential Project would not conflict with or obstruct a sustainable groundwater management plan. Therefore, operational impacts related to water quality control plan or groundwater management plan consistency would be less than significant.

Level of Significance

Less Than Significant (Civic Project and Residential Project)

3.8.5 - Cumulative Impacts

Hydrology

Cumulative impacts related to hydrology and water quality typically occur within a defined watershed. All properties on the cumulative projects listed in Chapter 3, Environmental Impact Analysis, Table 3-1, Cumulative Projects, are located within the Walnut Creek Watershed which eventually drains into Suisun Bay and ultimately into the Pacific Ocean. All cumulative projects, including the Residential Project and Civic Project, would be required to comply with the CCCWP and Pleasant Hill 2003 General Plan policies, which prevent a project from increasing off-site surface water flow from existing conditions and ensure that projects adhere to BMPs during construction to prevent pollutants from being carried off-site. The combination of these policies and BMPs would prevent significant cumulative impacts to hydrology. Thus, there would be a less than significant cumulative impact related to hydrology.

Water Quality

The geographic context for consideration of cumulative impacts related to surface water quality is the Walnut Creek Watershed. All cumulative projects, including the Residential Project and Civic

Project, would involve short-term construction and long-term operational activities that would have the potential to degrade water quality in downstream water bodies, including the Suisun Bay. All cumulative project construction would be required to obtain a Construction General Permit from the State Water Board, which would require preparation of a SWPPP that would control potential discharges of contaminants into Suisun Bay. Operations of these cumulative projects would be required to comply with the Pleasant Hill 2003 General Plan policies and Pleasant Hill Municipal Code Ordinance. Development in the City of Pleasant Hill would be required to implement these measures in accordance with adopted regulations, while projects would be subject to the Construction General Permit if applicable. Thus, there would be a less than significant cumulative impact related to surface water quality.

The geographic context for consideration of cumulative impacts related to groundwater quality and management is the Ygnacio Valley Groundwater Basin. All cumulative projects, including the Residential Project and Civic Project, would involve short-term construction and long-term operational activities that would have the potential to impact groundwater quality and management. All cumulative project construction would be required to obtain a Construction General Permit from the State Water Board, which would require preparation of a SWPPP that would control pollutants that could seep into groundwater. Operations of these cumulative projects would be required to comply with the CCCWP, thereby ensuring that stormwater is pre-treated via bioretention to ensure that percolation to the groundwater table would not result in degradation of groundwater quality. Thus, there would be a less than significant cumulative impact related to groundwater quality.

Flooding

The geographic context for consideration of cumulative impacts related to flooding is the southeastern area of the City of Pleasant Hill. According to the Pleasant Hill 2003 General Plan, the City anticipates limited urban growth in the City due to little developable land. The cumulative projects listed in Table 3-1 are located throughout the City of Pleasant Hill.

As discussed in the Pleasant Hill 2003 General Plan, portions of the City are located in a floodplain. Flooding occurs mainly near Grayson Creek due to limited channel capacity and inadequate drainage facilities that become blocked by debris during high intensity storm events.[16] Pleasant Hill Safety and Noise Policies 1A, 1B, 1C, and Safety and Noise Programs 1.1–1.11 would direct the City to provide floodplain management to protect its citizens and property. The Residential Project and future development projects usually contribute as part of the annual property tax for the installation of citywide improvements and CIP-related storm drainage improvements designed to offset existing and future localized flooding conditions throughout the City. The City would review cumulative development proposals in accordance with applicable guidelines, ordinances, and permitting requirements. Thus, there would be a less than significant cumulative impact related to flooding.

Level of Cumulative Significance

Less Than Significant (Civic Project and Residential Project)

[16] City of Pleasant Hill. Pleasant Hill 2003 General Plan Draft EIR, page 37.

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3.9 - Land Use and Planning

3.9.1 - Introduction

This section describes the existing conditions related to land use and planning in the region and Specific Plan area (plan area) as well as the relevant regulatory framework. This section also evaluates the possible impacts related to land use and planning that could result from implementation of the Oak Park Properties Specific Plan (proposed plan). Information included in this section is based on site reconnaissance, the Pleasant Hill 2003 General Plan and updated elements, applicable provisions of the Pleasant Hill Municipal Code (zoning ordinances), and the proposed plan included as Appendix K. During the Environmental Impact Report (EIR) scoping period, no comments were received related to land use and planning.

3.9.2 - Environmental Setting

Physical Land Use

City of Pleasant Hill

The southeastern area of the City of Pleasant Hill includes a diverse mix of land uses, including residential, general commercial, retail, office, recreation, school, and civic uses. The southern edge of the City generally extends one property deep, south of Oak Park Boulevard and towards Putnam Boulevard to the east.

Surrounding Area

To the North

Land uses to the north of the plan area consist of park facilities, a middle school campus, and single-family neighborhoods. The Pleasant Oaks Park is located immediately north of the existing Contra Costa County Library Administration building. The park consists of five baseball/softball grass fields with surface parking areas and concession buildings. Pleasant Hill Middle School is also located immediately north of the eastern undeveloped vacant area. An existing track/soccer field and surface parking area separates the plan area from school buildings. A small "u-shaped" parking area is also located along Monticello Avenue between the plan area and the track/soccer field. Additional sports facilities (tennis courts, basketball courts, swimming pool, and baseball/softball fields) are located further north and associated with the school. Further north, the surrounding area transitions towards low-density single-family homes (Poets Corner Neighborhood).

To the East

An East Bay Municipal Utilities District (EBMUD) multi-use trail borders the plan area to the east. The EBMUD trail continues from Oak Park Boulevard along the eastern plan area boundary and connects to residential neighborhoods to the north and downtown Pleasant Hill further north/northeast. Across the EBMUD trail, further east, land uses predominantly consist of single-family neighborhoods. An assisted living facility and commercial businesses are located along Oak Park Boulevard, towards the Interstate 680 (I-680) overpass.

Oak Park Boulevard generally forms the southern boundary of the plan area. Land uses consist predominantly of single-family homes. As described above, the EBMUD trail provides multi-modal access from Oak Park Boulevard into surrounding low-density residential neighborhoods.

To the South

The plan area is bound on the south by Oak Park Boulevard, and land uses further south of Oak Park Boulevard consist of single-family neighborhoods.

To the West

Land uses to the west of the plan area include office buildings, apartment complexes, and a neighborhood-chain grocery store (Safeway) further west. The Contra Costa County Office of Education is located immediately west of the existing library along Santa Barbara Road and Monte Cresta Avenue. A large surface parking area with solar-panel-roofing abuts the library parking lot and is separated by a property line-defined landscaped area with sparse trees and bushes. Pedestrian and sidewalk areas along Oak Park Boulevard and Monte Cresta Avenue are landscaped with maintained grass/lawns and trees. Across Monte Cresta Avenue, land uses transition from professional offices to residential and then local-serving retail, commercial business, and restaurants.

Plan Area

The overall 16.60-acre plan area consists of three Assessor's Parcels, as shown in Exhibit 2-5 and listed in Table 3.9-1. Further physical land use descriptions by address are provided below.

Table 3.9-1: Plan Area Assessor's Parcels

Assessor's Parcel Numbers	Addresses	Ownership
149-271-014	1750 Oak Park Boulevard	Contra Costa County
149-230-005	1700 Oak Park Boulevard	Contra Costa County
Portions of 149-230-008	Portion of Grayson Creek Corridor and the northerly portion of Monticello Avenue within plan area	Mount Diablo Unified School District
Source: City of Pleasant Hill 2018; compiled by FirstCarbon Solutions (FCS) 2019.		

1750 Oak Park Property (Existing Library and Vacant Administration Offices)[1]

The property located immediately west of Monticello Avenue is developed with a library building and vacant administrative offices. Monticello Avenue bisects the plan area, providing access to Oak Park Boulevard (to the south) and other ancillary streets (to the west and north) that meander into surrounding neighborhoods. Landscaped areas and pavement separate the western and eastern areas. No east-west roadway or direct pedestrian pathways connect the western and eastern areas. However, Monticello Avenue provides north-south access for vehicles, bicyclists, and pedestrians. One stairway along Monticello Avenue leads from the sidewalk to the library main entrance.

[1] The administrative offices were partially vacated in 2016 and fully vacated in 2018.

Another stairway leads to the administrative office building entrance further north along Santa Barbara Road. Sidewalk conditions vary but generally run along Oak Park Boulevard, Santa Barbara Drive, and the west curb of Monticello Avenue within the plan area.

The South Library parking lot fronts Oak Park Boulevard, and primary access is provided along this frontage. This parking lot consists of asphalt with marginal landscaping along street frontages and curb medians. The North Library parking lot consists of asphalt with marginal landscaping along the western boundary of the lot. Parking is available for library visitors free of charge. Secured bicycle racks are located among ornamental trees and shrubbery next to the main library entrance.

The Pleasant Hill Library consists of a circular building with a large rotunda on the first floor and mezzanine upper level. The northern portion of the building connects to neighboring administrative offices. Primary site access is provided along Oak Park Boulevard, leading inward from the surface parking lot. The area is landscaped with a variety of ornamental trees and shrubbery. The building is setback approximately 230 feet from Oak Park Boulevard and 130 feet from Monticello Avenue.

A main driveway from Santa Barbara Road provides access into surface parking lots, one located in the interior and another located along Santa Barbara Road. The northern portion contains existing trees with no other landscaped areas associated with the surface parking lots. Paved sidewalks flank the eastern and northern roadways adjacent to the office building. The western property boundary abuts neighboring buildings with ornamental trees and bushes that transition towards small grassy knolls and paved sidewalks along Oak Park Boulevard.

1700 Oak Park Property

This property is predominantly undeveloped, although it contains a 762-linear-foot segment of Monticello Avenue, and formerly contained the Oak Park Elementary School, which operated on the site until 1976, followed by a series of non-profits that leased the former school buildings until 2009 when all buildings, parking areas, and associated landscaping were demolished. In addition to the segment of Monticello Avenue, the property consists of unmaintained vegetation consisting mainly of seasonal grasses and an assortment of non-ornamental trees.

A sidewalk runs the full length of Monticello Avenue on the western side. An informally established dirt/gravel parking area, which used to serve the former Oak Park Elementary School, lines a 230-foot portion on the east side of Monticello Avenue, approximately 170 feet north of Oak Park Boulevard.

A paved parking circle is located in the northern portion of the property, containing 13 on-street parking spaces, and a sidewalk, which continues northward through the school district property.

Grayson Creek Corridor (Pleasant Hill Middle School Field to Oak Park Boulevard)

This segment of Grayson Creek has a nominal width of 50 feet from top-of-bank to top-of-bank. The Creek generally runs along a north-south direction, along the eastern boundary of the 1700 Oak Park Boulevard property. The Creek and its banks are also within a Federal Emergency Management Agency (FEMA) flood zone.

Oak Park Boulevard

Oak Park Boulevard within the plan area is approximately 690 linear feet. The north side of the street is lined with maintained landscaping along the existing Contra Costa County Education building with intermittent vegetation along the existing library site. Vegetation continues along the existing vacant site towards the EBMUD trail to the east. A sidewalk runs the full length of the street segment on the north side of the street, and intermittently along the south side of the street. Bicycle lanes run the full length of the street segment on the north and south sides of the street. Overhead utility lines also run the full length of the street segment on the north and south sides of the street.

Land Use Designations and Zoning

Surrounding Area

The Pleasant Hill 2003 General Plan and City zoning map organize land uses throughout the City. The City zoning map further categorizes land uses into subsets, which regulate allowable land uses and how the City will manage future development to minimize conflicting land uses. The City Zoning Ordinance regulates a given property to ensure the basic building shapes and sizes (building heights, setbacks, and development intensities) are compatible with the surrounding area.

The land areas surrounding the plan area are all within the City of Pleasant Hill jurisdiction. Table 3.9-2 provides a summary of surrounding land use designations and zoning.

Table 3.9-2: Surrounding Land Use Designations

Land Use	Relationship to Plan Area	Land Use Designation	
		General Plan	Zoning
Single-Family Residential	North	Single-Family Medium Density	R10 Single-Family—10,000-square-foot lots
Pleasant Oaks Park	North	Park	R10 Single-Family—10,000-square-foot lots
Pleasant Hill Middle School	North	School	R10 Single-Family—10,000-square-foot lots
EBMUD Trail	East	Semi-Public Institutional	PUD 410 Planned Unit District
Single-Family Residential	East	Single-Family High Density	R7 Single-Family—7,000-square-foot lots
Gas Station	East	Neighborhood Business	NB Neighborhood Business
Single-Family Residential	South	Single-Family High Density	R10 Single-Family—10,000-square-foot lots
Multi-Family Residential	West	Multiple-Family Medium Density	MRM Multiple-Family Medium Density
Commercial Retail	West	Neighborhood Business	NB Neighborhood Business
Office Space	West	Office	NB Neighborhood Business
Single-Family Residential	West	Single-Family Medium Density	R10 Single-Family—10,000-square-foot lots

Source: City of Pleasant Hill. Pleasant Hill 2003 General Plan Land Use Map, City Zoning Map (amended, May 2011).

Plan Area

1750 Oak Park Property (Existing Library and Vacant Administration Offices)

The Pleasant Hill 2003 General Plan designates the property as "Semi Public and Institutional," which generally allows for utility facilities and easements, libraries, civic offices, fire protection services, religious institutions, and hospitals.[2] The City zoning map currently designates this property as "R10" (Single Family—10,000-square-foot lots).

1700 Oak Park Property (Existing Vacant Area)

The Pleasant Hill 2003 General Plan designates the property located immediately east of Monticello Avenue as "Mixed Use." The "Mixed Use" designation generally allows combined residential, retail, commercial, office, and/or public uses. The City zoning map currently designates this property as "PUD 410" (Planned Unit District).

Monticello Avenue (Existing Roadway)

The Pleasant Hill 2003 General Plan designates the Monticello Avenue portion of Assessor's Parcel Number (APN) 149-230-008 northeast of the existing library site as "School." The "School" designation allows for "child day care facilities and commercial or educational athletic facilities, such as sports training centers."[3] The City zoning map currently designates this property as "R10" (Single-Family—10,000-square-foot lots).

Grayson Creek Corridor (Pleasant Hill Middle School Field to Oak Park Boulevard)

The Pleasant Hill 2003 General Plan designates the Grayson Creek Corridor portion of APN 149-230-008 as "Mixed Use." The "Mixed Use" designation generally allows combined residential, retail, commercial, office, and/or public uses.[4] The City zoning map currently designates this property as "PUD 410."

Oak Park Boulevard

This street segment is a public right-of-way and does not have a designation.

3.9.3 - Regulatory Framework

Federal

No federal plans, policies, regulations, or laws related to land use planning apply to the proposed plan.

State

No State plans, policies, regulations, or laws related to land use planning apply to the proposed plan.

Regional

Plan Bay Area

Plan Bay Area, published by the Metropolitan Transportation Commission (MTC) and Association of Bay Area Governments (ABAG), is a long-range integrated transportation and land use/housing strategy

[2] City of Pleasant Hill. City of Pleasant Hill 2003 General Plan, page 11.
[3] *Ibid*.
[4] *Ibid*.

through 2040 for the Bay Area. Plan Bay Area functions as the sustainable communities' strategy mandated by Senate Bill 375. As a regional land use plan, Plan Bay Area aims to reduce per-capita greenhouse gas emissions through the promotion of more compact, mixed-use residential and commercial neighborhoods located near transit. Plan Bay Area is built on Priority Development Areas (PDAs) selected and approved by city and county governments with planning grants, technical assistance, and prioritization for regional and State transportation and affordable housing funds. Plan Bay Area is a limited and focused update that builds upon a growth pattern and strategies developed in the original Plan Bay Area (adopted by MTC in 2013) but with updated planning assumptions that incorporate key economic, demographic, and financial trends from the last four years.

Local

Pleasant Hill 2003 General Plan

The Pleasant Hill 2003 General Plan provides for the day-to-day physical development decisions that shape the social, economic, and environmental character of the City's approximate 7-square-mile planning area that define the city limits. The Pleasant Hill 2003 General Plan policies guide new development and land use activities that occur within City limits. The City updated three Pleasant Hill 2003 General Plan elements: Housing (2015, Resolution No. 26-15), Circulation (2015, Resolution No. 26-15), and Growth Management (2013, Resolution No. 37-13) as well as amendments to Pleasant Hill 2003 General Plan Mixed Use Growth Development and related Economic Development Strategies (2016, Resolution No. 21-16) and Miscellaneous Text Clarifications (2018, Resolution No. 66-18).[5]

The Pleasant Hill 2003 General Plan is organized into the following elements:

- **Community and Development Element:** includes Land Use Pattern, Neighborhoods, Visual Quality, Public Facilities and Services, Recreation, Parks, Open Space, Natural Resources, Conservation and Energy, Cultural and Historic resources.
- **Economic Strategy Element:** includes Commercial Uses and Economic Opportunities.
- **Circulation Element:** includes Street Network, Level of Service, and Alternate Transportation.
- **Growth Management Element:** includes Traffic Levels of Service and Performance Standards for Services.
- **Safety and Noise Element:** includes Flooding, Airport, Geologic Hazards, Fire Hazards, Hazardous Materials, Noise, and Air Quality.
- **Housing Element:** includes Population and Employment Trends, Constraints on Housing Production, and Goals, Policies, and Programs.

The Safety and Noise Element, in part, is intended to ensure that airport operations do not adversely affect the quality of life and safety of City residents. Pleasant Hill 2003 General Plan Policy 2A contains development restrictions consistent with the 2000 Contra Costa County Airport Land Use

[5] City of Pleasant Hill. Pleasant Hill 2003 General Plan [updated elements]. Website: https://www.ci.pleasant-hill.ca.us/132/Current-General-Plan.

Compatibility Plan (described above). The plan area is not located within an established airport influence area or safety zone.

The Pleasant Hill 2003 General Plan contains a land use map. Approved by City Council in July 2003, the land use map designates properties throughout the City planning area (i.e., the City jurisdictional limits). The City organizes land uses into four broad categories: residential, commercial, industrial, and public realm and semi-public. Each category contains sub-categories that further describe particular land uses (e.g., single-family low density, single-family medium density, single-family high density, etc.). The categorical organization of the City's land use map directly relates to land use regulations, building standards, and architectural design requirements articulated in the City zoning ordinance.

Goals and policies as set forth in the Community Development Element that are applicable to the proposed plan include the following:

- **Policy 1A:** Encourage aesthetic enhancement of residential areas, while retaining the charm and character of individual neighborhoods.
- **Policy 4B:** Maintain the suburban town atmosphere of Pleasant Hill.
- **Policy 10A:** Establish secondary emergency access routes for all areas of the city currently lacking dual access.
- **Policy 10B:** Meet City-adopted emergency response time and efficiency objectives.
- **Policy 11A:** Ensure that basic (water, sewer, and solid waste) services are provided to proposed development, and that the provision of those services does not jeopardize service to existing uses.
- **Policy 14A:** Acknowledge that access to an excellent library with standard hours of operation is a key component of quality of life in the City.
- **Policy 17A:** Advocate a wide range of recreation programs for all segments of the resident and visitor population.
- **Policy 21A:** Require reclamation of degraded streams, wetlands and riparian areas, including wildlife migration corridors, where possible in cooperation with the Flood Control District.
- **Policy 22A:** Minimize the impacts of development on plants and animals, including sensitive habitat and migration corridors.
- **Policy 23A:** Give priority to development that incorporates energy-efficient and resource conserving design and construction.
- **Policy 23B:** Support and expand recycling programs for residential, commercial and industrial uses, with the goal of attaining the mandated 50 percent diversion rate.
- **Policy 25A:** Pursue methods to maintain historic structures and appropriately designate and protect additional historic and cultural resources that may exist in the City.

Goals and policies as set forth in the Economic Strategy Element that are applicable to the proposed plan include the following:

- **Policy 2D:** Facilitate reuse of underutilized parcels when appropriate.
- **Policy 4B:** Ensure that the cost of new development, including necessary public improvements, is shared equitably by project proponents.

Goals and policies as set forth in the Circulation Element that are applicable to the proposed plan include the following:

- **Policy 1A:** Maintain rights-of-way at current widths, except as necessary to relieve specific areas of congestion.
- **Policy 2A:** Develop a connected system of street, roads, and highways that provides continuous, safe and convenient multi-modal travel options for all types of users throughout the City.
- **Policy 6A:** Encourage use of bus and rail service for local and regional travel.
- **Policy 7A:** Maintain and upgrade the City's bikeway system.
- **Policy 8A:** Maintain and upgrade the City's pedestrian system by installing or upgrading sidewalks, warning devices, crosswalks, and other pedestrian aids where appropriate, including particular consideration for the needs of pedestrians with limited mobility and/or disabilities.
- **Policy 9A:** Improve sidewalks to facilitate access by persons with disabilities.

Goals and policies as set forth in the Growth Management Element that are applicable to the proposed plan include the following:

- **Policy 1A:** Promote orderly and efficient growth in existing urban areas and protect open space by adhering to the [City] Urban Limit Line.
- **Policy 1B:** Support infill and redevelopment in existing urban areas and around key transit facilities.
- **Policy 1C:** Strive to ensure the availability of affordable housing.
- **Policy 2B:** Require that new development pay its share of costs associated with the overall growth in the region.
- **Policy 2C:** Require that all development projects comply with the City's performance standards for fire, police, parks, water, flood control, sanitary sewer, and transportation facilities.
- **Policy 3A:** Consider the needs of vehicles, bicycle, and pedestrians on all city roadways and facilities.

Goals and policies as set forth in the Safety and Noise Element that are applicable to the proposed plan include the following:

- **Policy 1A:** Maintain and upgrade the City's drainage system.
  Policy 1B: Reduce flood damage potential in areas known to be prone to flooding.
- **Policy 3A:** Ensure that structures are designed and located to withstand strong ground shaking, liquefaction and seismic settlement.
- **Policy 4A:** Enhance the ability of the Fire District to respond to and suppress fires.
- **Policy 6A:** Assist in the protection and monitoring of water quality.
- **Policy 7A:** Require new development projects to be designed and constructed to meet acceptable noise level standards adopted by the City.
- **Policy 7B:** Evaluate the noise impacts of development based on the potential for significant increases in noise levels, in addition to acceptability standards.
- **Policy 8A:** Promote measures that improve air quality and help meet air quality attainment standards.

- **Policy 8B:** Minimize the air quality impacts of vehicle emissions, and promote the use of clean alternative fuels.
- **Policy 8C:** Encourage use of electric (rather than gasoline-powered) equipment and natural gas appliances, including outdoor grills.

Goals and policies as set forth in the Housing Element that are applicable to the proposed plan include the following:

- **Policy 1B:** Maintain a sufficient supply of residential land with appropriate zoning to meet locally generated housing needs.
- **Policy 2A:** Allow a variety of housing types to be built on residential sites.
- **Policy 2D:** Encourage mixed-use development at underutilized sites, where appropriate.
- **Policy 3A:** Facilitate construction of affordable housing by favoring new projects that include units for lower-income segments of the community.
- **Policy 3B:** Look for opportunities to promote the development of housing affordable and available to those who work in Pleasant Hill.
- **Policy 5C:** Ensure that new residential development is compatible with surrounding neighborhoods.
- **Policy 5E:** Provide public services and improvements that keep neighborhoods safe and livable.
- **Policy 8A:** Encourage energy conservation practices for new and existing residential dwellings.
- **Policy 8B:** Encourage the use of green building and sustainable practices for new and renovation projects throughout the City.

Pleasant Hill Municipal Code–Zoning Ordinance

Title 18 of the Pleasant Hill Municipal Code contains the City planning and zoning ordinance. The City implements the goals and policies of the Pleasant Hill 2003 General Plan through zoning standards and architectural review permits to prevent unsuitable development in the City.

The City zoning ordinances regulate land use and structures in order to implement the goals and policies described in the Pleasant Hill 2003 General Plan. Zoning ordinances provide the basis for how the City promotes health, safety, and welfare of the public, and preserves and enhances the quality of life for residents. The zoning ordinance seeks, among other things, to preserve, protect, and enhance residential suitable areas; minimize impacts; and ensure compatibility between new multifamily developments with less intensive surrounding residential development.

The PUD zoning designation is described below in more detail.

Planned Unit District

Pleasant Hill Municipal Code, Section 18.20.010 (Specific purposes–summary of residential districts), outlines certain requirements for new and alterations to existing land uses, structures, and site development within residentially zoned areas. Section 18.20.010(B)(9) (PUD residential planned unit development) further articulates development parameters to carry out the intent of the Pleasant Hill Municipal Code. The PUD zoning district generally allows for a total number of dwelling units above minimum densities, but not above maximum densities, permitted by the Pleasant Hill 2003 General

Plan—subject to certain exceptions in Section 18.20.040(B)—for the total area allocated to residential use.[6]

Pleasant Hill Municipal Code, Section 18.30.010 (Specific Purposes), outlines the specific purpose of the PUD zoning district. In addition to the general intent of the City zoning ordinance,[7] the PUD zoning district furthers the City's land use planning efforts by ensuring efficient administrative procedures for development of large parcels. The City balances administrative efficiency with orderly land use planning and adequate review procedures that result in quality urban design. The City encourages development variety and integrating open space/common areas in residential areas. The City also encourages coordinated development that might otherwise occur in unrelated increments.

Pursuant to Section 18.30.050 of the Pleasant Hill Municipal Code, the City requires the rezoning of property to PUD be accompanied by a "concept plan." The City would adopt the concept plan into the zoning ordinance. The concept plan would include text and diagrams that meet specified conditions described in the PUD zoning district ordinance.[8] Among other things, the concept plan would describe the distribution, location, and extent of land uses (including open space). The concept plan would include standards and criteria by which development will proceed (including utilization of on-site natural resources). The concept plan would also include design criteria for all landscaped areas and buildings as well as a land use regulation schedule, which defines the permitted, conditional, and temporary and accessory uses within the area covered by the concept plan. The City would review the rezoning request and present recommendations and findings followed by hearings of the Architectural Review Commission,[9] City Planning Commission,[10]and City Council.[11]

The proposed plan establishes permitted land uses within the PUD zoning district. These uses are summarized in Table 3.9-3.

For Single Family (R) and Multi-family Residential (MR) zoning districts, the limitation on specific use classifications are as follows:

- **L-1:** Minimum site area of 10,000 square feet.
- **L-2:** Minimum site area of one acre.
- **L-3:** Minimum site area of three acres.
- **L-4:** See Pleasant Hill Municipal Code Section 18.25.090 for live entertainment standards.
- **L-5:** Not more than six occurrences during a calendar year. Each occurrence shall not exceed two consecutive days.
- **L-6:** Not more than four occurrences during a calendar year. Each occurrence shall not exceed seven consecutive days.
- **L-7:** Not more than six occurrences during a calendar year, for not more than 14 consecutive days per occurrence.

[6] City of Pleasant Hill. Pleasant Hill Municipal Code Section 18.30.040(B), below minimum density allowed provided findings pursuant to Government Code Section 65589.5; exceedance allowed where density bonus approved pursuant to Pleasant Hill Municipal Code Section 18.20.060.
[7] Pleasant Hill Municipal Code Chapter 18.05, [Zoning Ordinance]. Section 18.05.030, Purpose and Organization.
[8] Pleasant Hill Municipal Code. Sections 18.30.050(A)–(G).
[9] Pleasant Hill Municipal Code, Section 18.30.060(A).
[10] Pleasant Hill Municipal Code, Section 18.30.060(B).
[11] Pleasant Hill Municipal Code, Section 18.30.060(C).

Table 3.9-3: Permitted Uses

Land Use	Land Use Regulations			
	OPP-Residential	OPP-Semi-Public Use	OPP-Park	Additional Use Regulations
Residential Uses				
Accessory dwelling unit	P	—	—	See Pleasant Hill Municipal Code Section 18.20.100
Accessory, junior, dwelling unit	P	—	—	See Pleasant Hill Municipal Code Section 18.20.095
Bed and breakfast	—	—	—	N/A
Care facility, small, licensed	P	—	—	N/A
Family day care home, large	P	—	—	See Pleasant Hill Municipal Code Section 18.20.080
Family day care home, small	P	—	—	N/A
Home occupation	P	—	—	See Pleasant Hill Municipal Code Section 18.20.070
Senior housing	P	—	—	N/A
Single-family residential	P	—	—	N/A
Single-room occupancy with boarder or lodger	P	—	—	No more than 3 boarders or lodgers
Public and Semipublic				
Community center	U	U	U	N/A
Cultural institutions	—	U	U	N/A
Day care, general	—	U	U	L-1
Park and recreational facilities	U	U	U	N/A
Public safety facilities	U	U	U	N/A
Religious assembly	U	U	U	N/A
Schools, public or private	U	U	U	N/A
Utilities, major	U	U	U	N/A
Utilities, minor	P	P	P	N/A
Wireless telecommunications facility	—	U	U	L-3; See Pleasant Hill Municipal Code Section 18.67
Library	—	P	—	N/A

Table 3.9-3 (cont.): Permitted Uses

Land Use	Land Use Regulations			
	OPP-Residential	OPP-Semi-Public Use	OPP-Park	Additional Use Regulations
Accessory Uses	P/U	—	—	See Pleasant Hill Municipal Code Section 18.20.050
Temporary Uses	N/A			See Pleasant Hill Municipal Code Section 18.100
Agricultural Sales	—	T	T	L-7
Animal shows or sales	—	T	T	L-2, L-5
Arts and crafts show outdoors	—	T	T	L-2, L-5
Christmas tree sales	—	—	—	L-2, L-7
Civic and community events	—	T	T	L-2, L-6
Commercial filming, limited	—	T	T	L-2, L-6
Live entertainment events	—	T	T	L-2, L-4, L-6
Outdoor exhibits	—	P	T	L-2, L-6
Personal property sales	P	—	—	L-5
Pumpkin sales	—	—	—	L-2, L-7
Recreational events	—	T	P	L-2, L-6
Street fairs	T	T	T	L-7

Notes:
Oak Park Residential (OPP-Residential)
Oak Park Semi-Public Use (OPP-Semi-Public Use)
Oak Park Parks and Recreation (OPP-Parks)
P = Permitted
U = Use Permit Required
T = Temporary Use Permit Required
— = Not Permitted
Source: Oak Park Properties Specific Plan, 2019.

The proposed plan also sets forth development standards for the proposed park (Table 3.9-4)[12] and for the proposed library (Table 3.9-5).

[12] Proposed park hours are from sunrise until 10:00 p.m. (if activities are scheduled). The sports fields would be used Monday through Friday after school until 10:00 p.m. and on Saturdays and Sundays from 8:00 a.m. to 10:00 p.m.

Table 3.9-4: Development Standards, Proposed Park

Development Feature	Requirement
Minimum Setbacks	
From Creek	10 feet[1]
From Parking Lot	20 feet
From Monticello Avenue	20 feet
From Northern Property Line	20 feet
Height Limitations	
For Light Fixtures	70 feet
For Park Structures	25 feet
For Park Buildings	20 feet
For Flagpoles	25 feet
Maximum Number of Building Stories	2.5 stories
Minimum Site Landscaping	5 percent[2]
Maximum Gross Floor Area Ratio	1,500 square feet
Parking	Determined by Use Permit

Notes:
[1] Measured from the top of Grayson Creek bank
[2] This does not include the actual playing fields that are excluded from this calculation.
[3] Parking spaces to be shared with the proposed library (as part of Civic Project). Non City-shared parking facilities shall comply with the Pleasant Hill Zoning Ordinance provisions (electric vehicle parking shall not be required).
Source: Oak Park Properties Specific Plan 2019.

Table 3.9-5: Development Standards, Proposed Library

Development Feature	Requirement
Minimum Lot Area	2.5 acres
Minimum Lot Width	200 feet
Minimum Setbacks	
From Creek	40 feet[1]
From Parking Lot	20 feet
From Monticello Avenue	20 feet
From Northern Property Line	20 feet
Height Limitations (Maximum)	
For Street Lights	22 feet
For Main Building	30 feet
For Site Fences and Auxiliary Buildings	14 feet
For Flagpoles	25 feet

Table 3.9-5 (cont.): Development Standards, Proposed Library

Development Feature	Requirement
Maximum Number of Building Stories	2.5 stories
Minimum Site Landscaping	20 percent
Maximum Floor Area Ratio	0.25
Parking	90 spaces minimum[2]

Notes:
[1] Measured from the top of Grayson Creek bank
[2] Parking spaces to be shared with the adjacent proposed park (as part of Civic Project).
Source: Oak Park Properties Specific Plan 2019.

Site development standards for the Residential Project are shown in Table 3.9-6 and Table 3.9-7. These standards are also shown in Figure 6.2: Residential Setback Diagram and Figure 6.3: Parking and Loading Development Standards Diagrams in the proposed plan. The letters in Table 3.9-6 correspond to Figure 6.2 and the letters in Table 3.9-7 correspond to Figure 6.3.

Table 3.9-6: Development Standards, Residential

Development Feature	Requirement
Minimum Lot Size	**3,936 square feet**
A. Minimum Width, internal lots	48 feet
B. Minimum width, corner lots	54 feet
C. Minimum width, lots along Monticello Avenue	54 feet
D. Minimum lot depth	82 feet
Minimum Setbacks	Chimneys, fireplaces, accent walls or pilasters, bay window, eaves or similar architectural projection may encroach as per City of Pleasant Hill Zoning Ordinance.
E. Front: to building face or porch	10 feet
F. Front: to front loaded garage door	19 feet (must maintain an 18-foot by 18-foot clear driveway)
G. Side—internal lot	4 feet
H. Side—corner lots: to building face	10 feet
I. Side—corner lots: to porch	7 feet
J. Rear	10 feet
Maximum Height	35 feet/2 stories
Maximum Lot Coverage	60 percent

Table 3.9-6 (cont.): Development Standards, Residential

Development Feature	Requirement
Minimum Open Space[1,2]	200 square feet per unit (can be private open space, common open space, or a combination of both consistent with the Pleasant Hill Municipal Code)
Parking	Two covered spaces per unit
Guest Parking	0.5 per unit (guest spaces may be provided on driveway aprons, on-street parking spaces or in designated parking spaces within the plan area. Driveway space shall be a minimum of 9 feet by 18 feet.
Accessory Dwelling Unit	0 (no additional parking required due to proximity to transit).

Notes:
[1] Private open space must be on a patio, private yard area, or on a balcony. The minimum dimensions required to qualify as Private Open space are: Yard: 150 square feet, with a minimum dimension of 10 feet; Porches, decks and balconies: 60 square feet, with a minimum dimension of 6 feet.
[2] Common open space must be designed so that a horizontal rectangle has no dimension less than 15 feet and may not include parking areas, or area required for front or side yards.
Source: Oak Park Properties Specific Plan 2019.

Table 3.9-7: Parking and Loading Development Standards, Residential

Off-Street Parking Standards	Requirement
A. Parking depth	19 feet (when a parking space abuts a landscaped planter less than 6 inches high, the front 2 feet of the required length for a parking space may extend into the planter.)
B. Parking width	9 feet (parallel spaces shall be 8 feet by 23 feet adjacent to a 10-foot wide travel lane.)
C. Drive Aisles	20 feet
D. Driveway Depth	18 feet
E. Driveway Width	18 feet
Source: Oak Park Properties Specific Plan 2019.	

Bicycle Parking

Pleasant Hill Municipal Code, Section 18.50.070(B–D), outlines certain requirements for bicycle parking and bicycle parking design. According to Section 18.50.070(B), where required, bicycle parking spaces shall be provided in every nonresidential district as required by this section.[13]

[13] Pleasant Hill Municipal Code Chapter 18.55, [Zoning Ordinance]. Section 18.55.070(B), Bicycle parking—Where required.

According to Section 18.50.070(C), the number of bicycle parking spaces provided would be specified by use permit for public and semipublic use classifications. For commercial use classifications, in every nonresidential district as required by this section.[14] According to Section 18.50.070(D), for each bicycle parking space required, a stationary object shall be provided to which a user can secure both wheels and the frame of a bicycle with a 6-foot cable and lock. The stationary object may be either a freestanding bicycle rack or a wall-mounted bracket. The following alternative facilities may be provided, subject to approval of the zoning administrator: an enclosed bicycle locker; or a three-point bicycle rack, which secures both wheels and the frame; or a fenced, covered, locked or guarded bicycle storage area. Spacing of the bicycle units shall be figured on a handle width of 3 feet, a distance from bottom of wheel to top of handlebar, 3 feet, 6 inches, and a maximum wheel distance of 6 feet.[15]

3.9.4 - Impacts and Mitigation Measures

Significance Criteria

According to 2019 California Environmental Quality Act (CEQA) Guidelines Appendix G, to determine whether impacts related to land use and planning are significant environmental effects, the following questions are analyzed and evaluated. Would implementation of the proposed plan:

a) Physically divide an established community?

b) Cause a significant environmental impact due to a conflict with a land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

Approach to Analysis

The analysis in this section focuses on whether implementing the proposed plan would physically divide an established community. It also identifies whether the proposed plan would conflict with land use plans, policies, or regulations adopted for the purpose of avoiding or mitigating an environmental effect. Conflicts and inconsistencies with a policy, in and of themselves, do not constitute significant environmental impacts, unless such conflicts or inconsistencies result in direct physical environmental impacts. The physical impacts associated with the implementation of the proposed plan are discussed throughout Chapter 3.0 of this EIR. Conflicts with land use plans, policies, or regulations adopted for the purpose of avoiding or mitigating an environmental effect are discussed below. The potential for land use impacts was assessed through review of applicable land use policy documents. Specifically, the Pleasant Hill 2003 General Plan, the Pleasant Hill Municipal Code (zoning ordinances), and the proposed plan were reviewed to identify applicable policies and provisions.

Specific Thresholds of Significance

For purposes of this analysis, the following thresholds are used to evaluate the significance of land use and planning impacts resulting from implementation of the proposed plan.

- Development resulting in physically dividing a community area within southeast Pleasant Hill.
- Development conflicting with the Pleasant Hill 2003 General Plan or the Pleasant Hill Municipal Code.

[14] Pleasant Hill Municipal Code Chapter 18.55, Zoning Ordinance. Section 18.55.070(C), Bicycle parking—Number required.
[15] See, Pleasant Hill Municipal Code, Chapter 18.55, Zoning Ordinance. Section 18.55.070(D), Bicycle parking design requirements.

Impact Evaluation

Divide an Established Community

Impact LUP-1: The proposed plan would not physically divide an established community.

Construction

Civic Project and Residential Project

Impacts related to physical division of an established community are limited to operational impacts. No respective construction impacts would occur.

Operation

Civic Project and Residential Project

The Civic Project and Residential Project do not propose the type of large or linear construction that could impact mobility within an existing community and the surrounding area. Rather, the Civic Project and Residential Project would redevelop the plan area with residential, library, and park components. As described in the Pleasant Hill 2003 General Plan, the plan area is designated for semi-public and institutional, school-related, and mixed-use development. Surrounding land uses include residential neighborhoods, parks, schools, and office buildings. The Civic Project and Residential Project would result in the development of the plan area in a manner that maintains the surrounding neighborhood character and would enhance existing civic and recreational uses.

Monticello Avenue and Oak Park Boulevard currently provide circulation within the City. These roadways would be improved, providing even better vehicle, bicycle, and pedestrian circulation for the established surrounding community. Therefore, the Civic Project and Residential Project would have a beneficial effect; neither the Civic Project nor the Residential Project would result in a physical division of an established community.

Level of Significance

No Impact (Civic Project and Residential Project)

Conflict with Applicable Plans, Policies, or Regulations

Impact LUP-2: The proposed plan would not cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

Implementation of the proposed plan would result in a significant impact if it would conflict with applicable land use plans and policies of the Pleasant Hill 2003 General Plan or the Pleasant Hill Municipal Code that were adopted for the purpose of avoiding or mitigating an environmental effect. A policy inconsistency is considered a significant adverse impact only if the inconsistency would result in a significant adverse physical impact based on the established significance criterion. Consistency of the proposed plan with applicable land use plans and policies is evaluated below. Consistency with the Pleasant Hill Municipal Code with respect to protected trees are evaluated in Section 3.3, Biological Resources, and with the City's adopted land use compatibility standards specifically with respect to noise are evaluated in Section 3.11, Noise.

Construction

Civic Project and Residential Project

Impacts related to consistency with applicable land use plans and policies are limited to operational impacts. No respective construction impacts would occur.

Operation

Pleasant Hill 2003 General Plan Consistency

Civic Project and Residential Project

The proposed changes to General Plan land use designation associated with implementation of the proposed plan are displayed in the exhibit in Chapter 2, Project Descriptions, and are as follows:

Residential Project

- 1750 Oak Park Boulevard (Proposed Residences)
  - from "Semi-Public and Institutional" to "Multifamily Very Low Density"
- 1750 Oak Park Boulevard (Proposed Pocket Park)
  - from "Semi-Public and Institutional" to "Park"

Civic Project

- 1700 Oak Park Boulevard—Northern Portion (Proposed Park)
  - from "Mixed Use" to "Park"
- 1700 Oak Park Boulevard—Southern Portion (Proposed Library)
  - from "Mixed Use" to "Semi-Public and Institutional"
- Grayson Creek Corridor—Northern Portion
  - from "Mixed Use" to "Park"
- Grayson Creek Corridor—Southern Portion
  - from "Mixed Use" to "Semi-Public and Institutional"

When a plan entails an amendment to the Pleasant Hill 2003 General Plan, inconsistency with the existing designation or zoning is an element of the plan itself, which then necessitates a legislative policy decision by the agency and does not signify a potential environmental effect. As such, the proposed General Plan Amendments, if approved, would maintain consistency with the Pleasant Hill 2003 General Plan. The City would evaluate the merits of these proposed amendments as part of its review of the applications for the Civic Project and the Residential Project.

As discussed under Impact LUP-1, the Civic Project and Residential Project would be compatible with the Pleasant Hill 2003 General Plan land use designations in the vicinity as well as the general development pattern of residential neighborhoods further south in the City of Walnut Creek and the educational uses to the north. Moreover, the proposed plan would be consistent with the Pleasant Hill 2003 General Plan policies adopted for the purpose of avoiding or mitigating an environmental effect (for example, the proposed plan would minimize the impacts of development on sensitive habitat as discussed further in Section 3.3, Biological Resources, and Section 3.8, Noise).

The Civic Project would be consistent with the Pleasant Hill 2003 General Plan goals and policies relative to providing access to the library and new civic uses as well as developing a key location with new playing fields and athletic facilities within the City. The Residential Project would be consistent with the Pleasant Hill 2003 General Plan goals and policies relative to housing. Table 3.9-8 summarizes consistency with applicable policies of the Pleasant Hill 2003 General Plan adopted for various land uses planning reasons, including the purpose of avoiding or mitigating an environmental effect. The analysis indicates whether a policy applies only to the Civic Project, the Residential Project, or both.

Table 3.9-8: Pleasant Hill 2003 General Plan Consistency Analysis

Element	Goal/Objective/Policy		Consistency Determination	Civic Project	Residential Project
	No.	Text			
Community Development	1A	Encourage aesthetic enhancement of residential areas, while retaining the charm and character of individual neighborhoods.	**Consistent:** The Residential Project would result in the construction of 34 single-family homes with seven accessory dwelling units (ADUs) that would be consistent with the suburban, residential character of the surrounding area. See Section 3.1, Aesthetics, for additional information and analysis.	N/A	X
	4B	Maintain the suburban town atmosphere of Pleasant Hill.	**Consistent:** See consistency analysis for Community Development Policy 1A, above, and Section 3.1, Aesthetics, for additional information and analysis.	X	X
	10A	Establish secondary emergency access routes for all areas of the city currently lacking dual access.	**Consistent:** The proposed residences would only be accessible from one roadway. As discussed in Mitigation Measure (MM) TRANS-4, the Residential Project would be required to provide two separated and approved fire apparatus access roads, or include an approved automatic sprinkler system in accordance with the 2016 California Fire Code. The Civic Project (park and library) would provide one access roadway, which, given their size and type of use, is in accordance with the 2016 California Fire Code. See Section 3.14, Transportation, for additional information and analysis.	X	X

Table 3.9-8 (cont.): Pleasant Hill 2003 General Plan Consistency Analysis

Element	Goal/Objective/Policy		Consistency Determination	Civic Project	Residential Project
	No.	Text			
Community Development (continued)	10B	Meet City-adopted emergency response time and efficiency objectives.	**Consistent:** The Civic Project and Residential Project would be infill developments. The plan area is well within identified boundaries of public service systems and would be able to receive public services at acceptable performance standards. See Section 3.12, Public Services, for additional information and analysis.	X	X
	11A	Ensure that basic (water, sewer, and solid waste) services are provided to proposed development, and that the provision of those services does not jeopardize service to existing uses.	**Consistent:** The Civic Project and Residential Project would ensure the provision of essential community services and facilities to the proposed developments. See Section 3.15, Utilities and Service Systems, for additional information and analysis.	X	X
	14A	Acknowledge that access to an excellent library with standard hours of operation is a key component of quality of life in the City.	**Consistent:** A new library is being developed as part of the Civic Project. The proposed public library would include book collection areas, indoor and outdoor gathering spaces, an idea incubator space, technology areas, a bookstore, and other space to support building operations and maintenance and would operate within the standard hours of operation. See Section 3.12, Public Services, for additional information and analysis.	X	N/A
	17A	Advocate a wide range of recreation programs for all segments of the resident and visitor population.	**Consistent:** The Civic Project's proposed public library and park would provide additional space for education and recreation programs that would serve all segments of the resident and visitor population. See Sections 3.12, Public Services, and 3.13, Recreation, for additional information and analysis.	X	N/A
	21A	Require reclamation of degraded streams, wetlands and riparian areas, including wildlife migration corridors, where possible in cooperation with the Flood Control District.	**Consistent:** Within Grayson Creek, the Civic Project would upgrade existing outfalls. See Section 3.3, Biological Resources, and Section 3.8, Hydrology and Water Quality, for additional information and analysis.	X	N/A

Table 3.9-8 (cont.): Pleasant Hill 2003 General Plan Consistency Analysis

Element	Goal/Objective/Policy		Consistency Determination	Civic Project	Residential Project
	No.	Text			
	22A	Minimize the impacts of development on plants and animals, including sensitive habitat and migration corridors.	**Consistent:** Both the Townsend's big-eared bat and the pallid bat have the potential to occur on both the Civic Project site and Residential Project site due to the marginal foraging habitat present within the plan area. Additionally, birds protected under the Migratory Bird Treaty Act have the potential to occur within the plan area boundaries based on both suitable nesting and foraging habitat found within the plan area. The Western pond turtle has the potential to occur within the Civic Project site due to the marginal habitat found within Grayson Creek. As such, MM BIO-1a (Civic Project and Residential Project), MM BIO-1b (Civic Project and Residential Project), and MM BIO-1c (Civic Project only) would reduce all impacts to less than significant levels by requiring pre-construction surveys and appropriate measures if protected species are found within the plan area.	X	X
	23A	Give priority to development that incorporates energy-efficient and resource conserving design and construction.	**Consistent:** The Civic Project and Residential Project would comply with the California Energy Code, by incorporating applicable energy efficiency features, and would incorporate landscape palettes that would include low maintenance trees. See Section 3.6, Greenhouse Gas Emissions and Energy, for additional information and analysis.	X	X
	23B	Support and expand recycling programs for residential, commercial and industrial uses, with the goal of attaining the mandated 50 percent diversion rate.	**Consistent:** The Civic Project and Residential Project would be required to comply with all recycling mandates under State and local laws including Pleasant Hill Municipal Code, Chapter 14.40. See Section 3.15, Utilities and Service Systems, for additional information and analysis.	X	X
	25A	Pursue methods to maintain historic structures and	**Consistent:** The City has pursued methods to maintain historic	N/A	X

Table 3.9-8 (cont.): Pleasant Hill 2003 General Plan Consistency Analysis

Element	Goal/Objective/Policy		Consistency Determination	Civic Project	Residential Project
	No.	Text			
		appropriately designate and protect additional historic and cultural resources that may exist in the City.	structures and appropriately designate and protect additional historic and cultural resources that may exist in the City. See Section 3.4, Cultural Resources, for additional information and analysis.		
	2D	Facilitate reuse of underutilized parcels when appropriate.	**Consistent:** The Civic Project would allow for additional, viable semi-public and institutional and recreational uses on an underutilized infill site. In addition, the Residential Project would provide additional housing in an urbanized area. See Section 3.11, Population and Housing.	X	X
	4B	Ensure that the cost of new development, including necessary public improvements, is shared equitably by project proponents.	**Consistent:** By redeveloping a currently underutilized and partially vacant site within the City's urbanized area, the Civic Project and the Residential Project would promote the orderly and efficient use of land. Pursuant to the signed Memorandum of Understanding between the City, County, and Recreation and Parks District (RPD), both projects would be required to satisfy all applicable standards and requirements imposed by the City with respect to infrastructure and public services. See Section 3.12, Public Services, Section 3.14, Transportation, and Section 3.15, Utilities and Service Systems, for additional information and analysis.	X	X
Circulation	1A	Maintain rights-of-way at current widths, except as necessary to relieve specific areas of congestion	**Consistent:** The Civic Project includes infrastructure improvements to Monticello Avenue and Oak Park Boulevard. These roadway improvements would maintain the rights-of-way at current widths. See Section 3.14, Transportation, for additional information and analysis.	X	N/A
	2A	Develop a connected system of street, roads, and highways that provides continuous, safe and	**Consistent:** One of the objectives of the Civic Project and Residential Project is to ensure development of the needed bike/pedestrian facilities,	X	X

Table 3.9-8 (cont.): Pleasant Hill 2003 General Plan Consistency Analysis

Element	Goal/Objective/Policy		Consistency Determination	Civic Project	Residential Project
	No.	Text			
		convenient multi-modal travel options for all types of users throughout the City.	and other public roadway infrastructure to facilitate a logical and safe transportation system that balances the overall needs of vehicles, bicycle, and pedestrians in the area and address key traffic circulation issues within the plan area boundary. In addition, an upgraded traffic signal would be installed at the Oak Park Boulevard/Monticello Avenue intersection, with funding provided on a fair share basis according to each project's trip generation and distribution. With respect to the Residential Project, the residential homes would be accessed off the internal street or smaller lanes that serve not more than six homes. The smaller lanes are organized to allow the homes to be clustered providing an intimate and less auto-centric community, while providing ample space for the volume of traffic they will serve. See Section 3.14, Transportation, for additional information and analysis.		
	6A	Encourage use of bus and rail service for local and regional travel.	**Consistent:** The Civic Project and Residential Project would be located adjacent to two bus stops (County Connection Bus Route No. 9). As a result, the Civic Project and Residential Project are consistent with this policy because they would be within walking distance of two bus stops and encourage the use of local bus service. See Section 3.14, Transportation, for additional information and analysis.	X	X
	7A	Maintain and upgrade the City's bikeway system	**Consistent:** The nearest bicycle facilities to the plan area are the EBMUD Trail, a Class 1 bike path that runs adjacent to the east boundary of the Civic Project along Grayson Creek and a Class 3 bike route along Oak Park Boulevard. Neither the	X	X

Table 3.9-8 (cont.): Pleasant Hill 2003 General Plan Consistency Analysis

Element	Goal/Objective/Policy		Consistency Determination	Civic Project	Residential Project
	No.	Text			
			Civic Project nor the Residential Project would remove existing bicycle infrastructure. The Civic Project would include a new bicycle lane on the improved portion of Monticello Avenue. See Section 3.14, Transportation, for additional information and analysis.		
	8A	Maintain and upgrade the City's pedestrian system by installing or upgrading sidewalks, warning devices, crosswalks, and other pedestrian aids where appropriate, including particular consideration for the needs of pedestrians with limited mobility and/or disabilities.	**Consistent:** Sidewalk coverage is not consistent within the plan area, and there are gaps along sections of Oak Park Boulevard, and Monticello Avenue in the immediate vicinity. The Civic Project would provide improved pedestrian facilities and pedestrian connectivity. The Residential Project would include pedestrian paths throughout the site. See consistency analysis for Circulation Policy 2A and Section 3.14, Transportation, for additional information and analysis.	X	X
	9A	Improve sidewalks to facilitate access by persons with disabilities.	**Consistent:** To accommodate all users of the street system and provide complete and connected pedestrian facilities, the Civic Project would include sidewalk improvements within the improvements to Monticello Avenue and Oak Park Boulevard in accordance with applicable City of Pleasant Hill Standards, and the design would meet Americans with Disabilities Act (ADA) requirements. The pedestrian paths to be constructed within the Residential Project would also be developed in accordance with applicable City of Pleasant Hill Standards, and their design would meet ADA requirements. See Section 3.14, Transportation, for additional information and analysis.	X	X

Table 3.9-8 (cont.): Pleasant Hill 2003 General Plan Consistency Analysis

Element	Goal/Objective/Policy		Consistency Determination	Civic Project	Residential Project
	No.	Text			
Growth Management	1A	Promote orderly and efficient growth in existing urban areas and protect open space by adhering to the [City] Urban Limit Line.	**Consistent:** By redeveloping a currently underutilized and partially vacant site within the City's urbanized area, the Civic Project and Residential Project would promote orderly and efficient growth.	X	X
	1B	Support infill and redevelopment in existing urban areas and around key transit facilities.	**Consistent:** See consistency analysis for Growth Management Policy 4A and 4B, and Section 3.14, Transportation, for additional information and analysis.	X	X
	1C	Strive to ensure the availability of affordable housing.	**Consistent:** The Residential Project would include 34 single-family homes with seven accessory development units and would therefore fulfill this requirement.	N/A	X
	2B	Require that new development pay its share of costs associated with the overall growth in the region.	**Consistent:** The Civic Project and Residential Project would be required to satisfy all applicable standards and requirements imposed by the City with respect to infrastructure and public services, including the construction or enhancement of existing facilities, and/or the payment of development fees. See Section 3.12, Public Services, and Section 3.15, Utilities and Service Systems, for additional information and analysis.	X	X
	2C	Require that all development projects comply with the City's performance standards for fire, police, parks, water, flood control, sanitary sewer, and transportation facilities.	**Consistent:** The Civic Project and Residential Project would be required to satisfy all applicable standards and requirements imposed by the City with respect to infrastructure, public services, and transportation facilities, including the construction or enhancement of existing facilities, and/or the payment of development fees. See Section 3.12, Public Services, Section 3.14, Transportation, and Section 3.15, Utilities and Service Systems, for additional information and analysis.	X	X

Table 3.9-8 (cont.): Pleasant Hill 2003 General Plan Consistency Analysis

Element	Goal/Objective/Policy		Consistency Determination	Civic Project	Residential Project
	No.	Text			
	3A	Consider the needs of vehicles, bicycle, and pedestrians on all city roadways and facilities.	**Consistent:** The Civic Project and Residential Project would be located adjacent to two bus stops (County Connection Bus Route No. 9). As a result, the Civic Project and Residential Project are consistent with this policy because they would be within walking distance of these transit connections. In addition, the nearest bicycle facilities to the plan area are the EBMUD Trail, a Class 1 bike path, runs adjacent to the east boundary of the Civic Project along Grayson Creek and a Class 3 bike route along Oak Park Boulevard. The Transportation Impact Study (TIS) concluded that the Civic Project and Residential Project could have construction-related impacts to vehicles and includes mitigation to address those potential impacts. See Section 3.14, Transportation, for additional information and analysis.	X	X
Safety and Noise	1A	Maintain and upgrade the City's drainage system.	**Consistent:** The Civic Project would include upgrades to three existing outfalls within Grayson Creek. See Section 3.8, Hydrology and Water Quality, for additional information and analysis.	X	N/A
	1B	Reduce flood damage potential in areas known to be prone to flooding.	**Consistent:** See 1A above.	X	N/A
	3A	Ensure that structures are designed and located to withstand strong ground shaking, liquefaction and seismic settlement.	**Consistent:** Structures would comply with the applicable California Building Standards Code provisions. In addition, prior to grading permits, the Civic Project and Residential Project would incorporate their respective site-specific geotechnical reports. See Section 3.5, Geology and Soils, for additional information and analysis.	X	X
	4A	Enhance the ability of the Fire District to respond to and suppress fires.	**Consistent:** This EIR sets forth standards requiring structures and other improvements to comply with the applicable California Building	X	X

Table 3.9-8 (cont.): Pleasant Hill 2003 General Plan Consistency Analysis

Element	Goal/Objective/Policy		Consistency Determination	Civic Project	Residential Project
	No.	Text			
			Standards Code provisions related to fire safety. In addition, the plan area is within an urbanized area and is 0.75 mile from the nearest fire station. See Section 3.12, Public Services, for additional information and analysis.		
	6A	Assist in the protection and monitoring of water quality.	**Consistent:** The Civic Project and Residential Project would implement applicable stormwater pollution prevention measures to protect water quality. See Section 3.18, Hydrology and Water Quality, for additional information and analysis.	X	X
	7A	Require new development projects to be designed and constructed to meet acceptable noise level standards adopted by the City.	**Consistent:** Both the Civic Project and Residential Project are designed to meet acceptable noise level standards adopted the City. The Residential Project includes additional sound attenuation for homes along Oak Park Boulevard, as identified in Section 3.10, Noise. With mitigation, neither the Civic Project nor the Residential Project would result in 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. See Section 3.10, Noise, for additional information and analysis.	X	X
	7B	Evaluate the noise impacts of development based on the potential for significant increases in noise levels, in addition to acceptability standards.	**Consistent:** This EIR includes a noise analysis for construction and operation. Where necessary, mitigation measures were identified to ensure the projects would not result in permanent increases in ambient noise levels due to plan-related traffic noise sources or stationary noise sources in excess of established standards. Section 3.10, Noise, for additional information and analysis.	X	X
	8A	Promote measures that improve air quality and help meet air quality attainment standards.	**Consistent:** This EIR includes an air quality analysis for construction and operation. Where necessary, mitigation measures were identified	X	X

Table 3.9-8 (cont.): Pleasant Hill 2003 General Plan Consistency Analysis

Element	Goal/Objective/Policy		Consistency Determination	Civic Project	Residential Project
	No.	Text			
			for each project to reduce emissions to the extent feasible. See Section 3.2, Air Quality, for additional information and analysis.		
	8B	Minimize the air quality impacts of vehicle emissions, and promote the use of clean alternative fuels.	**Consistent:** This EIR includes an air quality analysis for construction and operational emissions, as well as an analysis of energy usage for the Civic Project and Residential Project. Where necessary, mitigation measures are identified for each project to reduce emissions energy usage to the extent feasible. See Section 3.2, Air Quality, and Section 3.6, Greenhouse Gas Emissions and Energy, for additional information and analysis.	X	X
	8C	Encourage use of electric (rather than gasoline-powered) equipment and natural gas appliances, including outdoor grills.	**Consistent:** The Civic Project and Residential Project would comply with the California Energy Code, by incorporating applicable energy efficiency features designed to reduce energy consumption. See Section 3.6, Greenhouse Gas Emissions and Energy, for additional information and analysis.	X	X
Housing	1B	Maintain a sufficient supply of residential land with appropriate zoning to meet locally generated housing needs.	**Consistent:** The Residential Project site (currently zoned "Single Family" [R10]) would be rezoned to a Planned Unit Development to provide a range of home types within the plan area. This proposed zoning would allow for residential uses and would not conflict with the City's goal of maintaining land with appropriate zoning for residential uses.	N/A	X
	2A	Allow a variety of housing types to be built on residential sites.	**Consistent:** The Residential Project would include a variety of housing types built on a residential site. See Section 3.11, Population and Housing, for additional information and analysis.	N/A	X
	2D	Encourage mixed-use development at underutilized sites, where appropriate.	**Consistent:** Implementation of the proposed plan would redevelop a currently underutilized and partially	X	X

Table 3.9-8 (cont.): Pleasant Hill 2003 General Plan Consistency Analysis

Element	Goal/Objective/Policy		Consistency Determination	Civic Project	Residential Project
	No.	Text			
			vacant site with a mix of uses including residential, recreational, and semi-public and institutional uses.		
	3A	Facilitate construction of affordable housing by favoring new projects that include units for lower-income segments of the community.	**Consistent:** The Residential Project includes 34 single-family homes with seven accessory dwelling units and would therefore fulfill that requirement and help the City in providing affordable housing.	N/A	X
	3B	Look for opportunities to promote the development of housing affordable and available to those who work in Pleasant Hill.	**Consistent:** See consistency analysis for Housing Policy 3A and Section 3.11, Population and Housing, for additional information and analysis.	N/A	X
	5C	Ensure that new residential development is compatible with surrounding neighborhoods.	**Consistent:** As shown in Table 3.9-1, the plan area is surrounded by single-family residential uses to the west, north, east, and south. Therefore, the proposed residential uses would be compatible with the surrounding residential neighborhoods.	N/A	X
	5E	Provide public services and improvements that keep neighborhoods safe and livable.	**Consistent:** By redeveloping a currently underutilized and partially vacant site within the City's urbanized area, the Civic Project and Residential Project promote the orderly and efficient use of land. The Civic Project and Residential Project would also be required to satisfy all applicable standards and requirements imposed by the City with respect to infrastructure and public services. See Section 3.12, Public Services, and Section 3.15, Utilities and Service Systems, for additional information and analysis.	X	X
	8A	Encourage energy conservation practices for new and existing residential dwellings.	**Consistent:** The Civic Project and Residential Project would comply with the California Energy Code by incorporating applicable energy efficiency features such as incorporating a landscape palette that would include low maintenance trees, designed to reduce energy	X	X

Table 3.9-8 (cont.): Pleasant Hill 2003 General Plan Consistency Analysis

Element	Goal/Objective/Policy		Consistency Determination	Civic Project	Residential Project
	No.	Text			
			consumption. See Section 3.6, Greenhouse Gas Emissions and Energy, for additional information and analysis.		
	8B	Encourage the use of green building and sustainable practices for new and renovation projects throughout the City.	**Consistent:** The Civic Project and Residential Project would comply with the California Green Buildings Standards Code. Furthermore, this EIR includes an analysis of compliance with energy efficiency standards, which include the use of green building and sustainable practices. Where necessary, mitigation measures are identified to require the use of green building and sustainable practices. See Section 3.6, Greenhouse Gas Emissions and Energy, for additional information and analysis.	X	X
Source: Pleasant Hill 2003 General Plan. Compiled by FCS 2019.					

As shown in Table 3.9-8, the proposed plan is consistent with all applicable Pleasant Hill 2003 General Plan policies.

The City would adopt the proposed plan to guide future development within the plan area. The proposed plan describes the distribution, location, and extent of land uses (including open space). Pursuant to the proposed plan, the Civic Project and Residential Project include building standards and design criteria (including landscaped areas); see Table 3.9-4 (proposed park), Table 3.9-5 (proposed library), 3.9-6 (development standards for the Residential Project) and Table 3.9-7 (parking and loading development standards for the Residential Project) as well as a land use regulation schedule for both the Civic Project and Residential Project; see Table 3.9-3. The land use schedule generally defines the permitted, conditional, and temporary and accessory uses within the area covered by the proposed plan. Adherence to the policies set forth in the proposed plan and review of the proposed plan by the Architectural Review Commission and the Planning Commission prior to approval would ensure compatibility with community standards.

Pleasant Hill Municipal Code—Zoning Ordinances Consistency

Civic Project

The Civic Project site is zoned "PUD 410" (Planned Unit District) to the east of Monticello Avenue and a portion of the MDUSD-owned property to the north (APN 149-230-008) is also zoned "PUD 410." The City would amend the zoning map and rezone the entire area to a new PUD to be consistent with the

proposed plan. Rezoning the Civic Project site would allow flexibility in zoning administration while ensuring compatibility among new land uses with the surrounding land uses and allow the Civic Project site to accommodate the proposed library and park uses. By complying with the proposed plan, impacts related to consistency with Pleasant Hill Municipal Code ordinances adopted for the purpose of avoiding or mitigating an environmental effect would be less than significant.

Residential Project

The Residential Project site is zoned "R10" (Single Family—10,000-square-foot lots). The City would amend the zoning map and rezone the Residential Project site to a new PUD to be consistent with the proposed plan. Rezoning the site would allow flexibility in zoning administration while ensuring compatibility among new land uses with the surrounding land uses and allow the Residential Project site to accommodate the proposed residences. By complying with the proposed plan, impacts related to consistency with Pleasant Hill Municipal Code ordinances adopted for the purpose of avoiding or mitigating an environmental effect would be less than significant.

Bicycle Parking

Civic Project and Residential Project

Bicycle parking would be provided pursuant to the proposed plan and would be compliant with the regulations set forth in Section 18.55.070(B-D) of the Pleasant Hill Municipal Code.

Overall, the implementation of the proposed plan would not conflict with applicable land use plans, policies, or regulations of the Pleasant Hill 2003 General Plan or the Pleasant Hill Municipal Code that were adopted for the purpose of avoiding or mitigating an environmental effect. Therefore, impacts would be less than significant.

Level of Significance

Less Than Significant (Civic Project and Residential Project)

3.9.5 - Cumulative Impacts

The geographic scope of the cumulative land use analysis is the plan area and its vicinity within the City of Pleasant Hill and its Sphere of Influence. The following discussion evaluates whether the proposed plan, in combination with other cumulative projects, as listed in Chapter 3, Environmental Impact Analysis, Table 3-1, Cumulative Projects, would divide an established community or conflict with a land use plan, policy, or regulation that were adopted for the purpose of avoiding or mitigating an environmental effect.

Divide a Community

The implementation of the proposed plan in conjunction with the cumulative projects listed in Table 3-1 would result in the development of commercial, educational, recreational, civic, and residential land uses. These projects do not propose the type of large or linear construction that could impact mobility within an existing community and the surrounding area and would occur in an urban environment. As such, in conjunction with other cumulative projects, there would be a less than significant cumulative impact with respect to dividing an existing community.

Conflict with Land Use Plan, Policy, or Regulation

Land use decisions for both the proposed plan and for the other cumulative projects listed in Table 3-1 are made at the City level. Development within the City of Pleasant Hill is governed by the Pleasant Hill 2003 General Plan and the Pleasant Hill Municipal Code, which ensure logical and orderly land use development and require discretionary review to ensure that projects do not result in land use environmental impacts due to inconsistency with the Pleasant Hill 2003 General Plan and other regulations.

Cumulative development projects in the City of Pleasant Hill would be required to demonstrate consistency with the Pleasant Hill 2003 General Plan and applicable codes, ordinances, and policies. This would ensure that these projects comply with applicable planning regulations. The proposed plan has been determined to be consistent with the City's policy. The proposed plan, in conjunction with other cumulative projects, would have less than significant cumulative impact with respect to conflicting with a land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

Level of Cumulative Significance

Less Than Significant (Civic Project and Residential Project)

3.10 - Noise

3.10.1 - Introduction

This section describes the existing conditions related to noise and vibration in the Specific Plan area (plan area) as well as the regulatory framework. This section also evaluated the possible impacts related to noise and vibration that could result from implementation of the Specific Plan (proposed plan). Information included in this section is based on the Pleasant Hill 2003 General Plan, the traffic analysis report included in Appendix J, and noise modeling results (noise modeling data is provided in Appendix I). The following comments were received during the Environmental Impact Report (EIR) scoping period related to noise and are addressed in this analysis:

- Construction noise impacts should be analyzed; and
- Noise impacts from the proposed sports fields should be analyzed.

3.10.2 - Environmental Setting

Characteristics of Noise

Noise is generally defined as unwanted or objectionable sound. Sound becomes unwanted when it interferes with normal activities, when it causes actual physical harm or when it has adverse effects on health. The effects of noise on people can include general annoyance, interference with speech communication, sleep disturbance, and in the extreme, hearing impairment. Noise effects can be caused by pitch or loudness. *Pitch* is the number of complete vibrations or cycles per second of a wave that result in the range of tone from high to low; higher-pitched sounds are louder to humans than lower-pitched sounds. *Loudness* is the intensity or amplitude of sound.

Several noise measurement scales exist that are used to describe noise in a particular location. A decibel (dB) is a unit of measurement that indicates the relative intensity of a sound. The zero point on the dB scale is based on the lowest sound level that the healthy, unimpaired human ear can detect. Changes of 3 dB or less are typically, only perceptible in laboratory environments. Audible increases in noise levels generally refer to a change of 3 dB or more, as this level has been found to be barely perceptible to the human ear in outdoor environments. Sound levels in dB are calculated on a logarithmic basis. An increase of 10 dB represents a 10-fold increase in acoustic energy, while 20 dB is 100 times more intense, and 30 dB is 1,000 times more intense. Each 10 dB increase in sound level is perceived as approximately a doubling of loudness. Only audible changes in existing ambient or background noise levels are considered potentially significant as described more fully below, pursuant to applicable noise standards.

As noise spreads from a source, it loses energy so that the farther away the noise receiver is from the noise source, the lower the perceived noise level. Noise levels diminish or attenuate as distance from the source increases based on an inverse square rule, depending on how the noise source is physically configured. Noise levels from a single-point source, such as a single piece of construction equipment at ground level, attenuate at a rate of 6 dB for each doubling of distance (between the single-point source of noise and the noise-sensitive receptor of concern). Heavily traveled roads

with few gaps in traffic behave as continuous line sources and attenuate roughly at a rate of 3 dB per doubling of distance.

Sound intensity is normally measured through the A-weighted sound level (dBA). This scale gives greater weight to the frequencies of sound to which the human ear is most sensitive. Table 3.10-1 shows some representative noise sources and their corresponding noise levels in dBA.

Table 3.10-1: Typical A-Weighted Noise Levels

Indoor Noise Source	Noise Level (dBA)	Outdoor Noise Sources
(Threshold of Hearing in Laboratory)	0	—
Library	30	Quiet Rural Nighttime
Refrigerator Humming	40	Quiet Suburban Nighttime
Quiet Office	50	Quiet Urban Daytime
Normal Conversation at 3 feet	60	Normal Conversation at 3 feet
Vacuum Cleaner at 10 feet	70	Gas Lawn Mower at 100 feet
Hair Dryer at 1 foot	80	Freight Train at 50 feet
Food Blender at 3 feet	90	Heavy-duty Truck at 50 feet
Inside Subway Train (New York)	100	Jet Takeoff at 2,000 feet
Smoke Detector Alarm at 3 feet	110	Unmuffled Motorcycle
Rock Band near stage	120	Chainsaw at 3 feet
—	130	Military Jet Takeoff at 50 feet
—	140	(Threshold of Pain)
Source: Compiled by FirstCarbon Solutions (FCS) 2018.		

Noise Descriptors

There are many ways to rate noise for various time periods, but an appropriate rating of ambient noise affecting humans also accounts for the annoying effects of sound, including during sensitive times of the day and night. The predominant rating scales in the State of California are the equivalent continuous sound level (L_{eq}), the day-night average level (L_{dn}) based on dBA, and the community noise equivalent level (CNEL). The L_{eq} is the total sound energy of time-varying noise over a sample period. The L_{dn} is the weighted average of the intensity of a sound, with corrections for time of day, and averaged over 24 hours. The time of day corrections require the addition of 10 decibels to sound levels at night between 10:00 p.m. and 7:00 a.m. The CNEL is similar to the L_{dn}, except that it has another addition of 4.77 dB to sound levels during the evening hours between 7:00 p.m. and 10:00 p.m. These additions are made to the sound levels during evening and nighttime hours because there is a decrease in the ambient noise levels, which creates an increased sensitivity to sounds compared with daytime hours. Many local jurisdictions rely on the CNEL noise standard to assess transportation-related impacts on noise-sensitive land uses.

Noise standards in terms of percentile exceedance levels, L_n, are often used together with the maximum noise level (L_{max}) for noise enforcement purposes. When specified, the percentile exceedance levels are not to be exceeded by an offending sound over a stated time period. For example, the L_{10} noise level represents the level exceeded 10 percent of the time during a stated period. The L_{50} noise level represents the median noise level (which means that the noise level exceeds the L_{50} noise level half of the time, and is less than this level half of the time). The L_{90} noise level represents the noise level exceeded 90 percent of the time, and is considered the lowest noise level experienced during a monitoring period. The L_{90} noise level is normally referred to as the background noise level. For a relatively steady noise, the measured L_{eq} and L_{50} are approximately the same.

When assessing the annoyance factor, other noise rating scales of importance include the L_{max}, which is the highest exponential time averaged sound level that occurs during a stated time period. L_{max} reflects peak operating conditions and addresses the annoying aspects of intermittent noise.

Noise Propagation

From the noise source to the receiver, noise changes both in level and frequency spectrum. The most obvious is the decrease in noise as the distance from the source increases. The manner in which noise reduces with distance depends on whether the source is a point or line source, as well as ground absorption, atmospheric conditions (wind, temperature gradients, and humidity) and refraction, and shielding by natural and manmade features. Sound from point sources, such as an air conditioning condenser, a piece of construction equipment, or an idling truck, radiates uniformly outward as it travels away from the source in a spherical pattern.

The attenuation or sound drop-off rate is dependent on the conditions of the land between the noise source and receiver. To account for this ground-effect attenuation (absorption), two types of site conditions are commonly used in noise models: soft-site and hard-site conditions. Soft-site conditions account for the sound propagation loss over natural surfaces such as normal earth and ground vegetation. For point sources, a drop-off rate of 7.5 dBA per each doubling of the distance (dBA/DD) is typically observed over soft ground with landscaping, as compared with a 6 dBA/DD drop-off rate over hard ground such as asphalt, concrete, stone and very hard packed earth. For line sources, such as traffic noise on a roadway, a 4.5 dBA/DD is typically observed for soft-site conditions compared to the 3 dBA/DD drop-off rate for hard-site conditions. Table 3.10-2 briefly defines these measurement descriptors and other sound terminology used in this section.

Table 3.10-2: Sound Terminology

Term	Definition
Sound	A vibratory disturbance created by a vibrating object which, when transmitted by pressure waves through a medium such as air, can be detected by a receiving mechanism such as the human ear or a microphone.
Noise	Sound that is loud, unpleasant, unexpected, or otherwise undesirable.

Table 3.10-2 (cont.): Sound Terminology

Term	Definition
Ambient Noise	The composite of noise from all sources near and far in a given environment.
Decibel (dB)	A unitless measure of sound on a logarithmic scale, which represents the squared ratio of sound-pressure amplitude to a reference sound pressure. The reference pressure is 20 micropascals, representing the threshold of human hearing (0 dB).
A-Weighted Decibel (dBA)	An overall frequency-weighted sound level that approximates the frequency response of the human ear.
Equivalent Noise Level (L_{eq})	The average sound energy occurring over a specified time period. In effect, L_{eq} is the steady-state sound level that in a stated period would contain the same acoustical energy as the time-varying sound that actually occurs during the same period.
Maximum and Minimum Noise Levels (L_{max} and L_{min})	The maximum or minimum instantaneous sound level measured during a measurement period.
Day-Night Level (DNL or L_{dn})	The energy average of the A-weighted sound levels occurring during a 24-hour period, with 10 dB added to the A-weighted sound levels occurring between 10:00 p.m. and 7:00 a.m. (nighttime).
Community Noise Equivalent Level (CNEL)	The energy average of the A-weighted sound levels occurring during a 24-hour period, with 5 dB added to the A-weighted sound levels occurring between 7:00 p.m. and 10:00 p.m. and 10 dB added to the A-weighted sound levels occurring between 10:00 p.m. and 7:00 a.m.
Source: Data compiled by FCS 2018.	

Traffic Noise

The level of traffic noise depends on the three primary factors: (1) the volume of the traffic, (2) the speed of the traffic, and (3) the number of trucks in the flow of traffic. Generally, the loudness of traffic noise is increased by heavier traffic volumes, higher speeds, and greater number of trucks. Vehicle noise is a combination of the noise produced by the engine, exhaust, and tires. Because of the logarithmic nature of noise levels, a doubling of the traffic volume (assuming that the speed and truck mix do not change) results in a noise level increase of 3 dBA. Based on the Federal Highway Administration (FHWA) community noise assessment criteria, this change is "barely perceptible"; for reference, a doubling of perceived noise levels would require an increase of approximately 10 dBA. The truck mix on a given roadway also has an effect on community noise levels. As the number of heavy trucks increases and becomes a larger percentage of the vehicle mix, adjacent noise levels increase.

Stationary Noise

A stationary noise producer is any entity in a fixed location that emits noise. Examples of stationary noise sources include machinery, engines, energy production, and other mechanical or powered equipment and activities such as loading and unloading or public assembly that may occur at commercial, industrial, manufacturing, or institutional facilities. Furthermore, while noise generated by the use of motor vehicles over public roads is preempted from local regulation, although the use of these vehicles is considered a stationary noise source when operated on private property such as at a construction site, a truck terminal, or warehousing facility. The emitted noise from the producer can be mitigated to acceptable levels either at the source or on the adjacent property through the use of proper planning, setbacks, block walls, acoustic-rated windows, dense landscaping, or by changing the location of the noise producer.

The effects of stationary noise depend on factors such as characteristics of the equipment and operations, distance and pathway between the noise generator and receptor, and weather. Stationary noise sources may be regulated at the point of manufacture (e.g., equipment or engines), with limitations on the hours of operation, or with provision of intervening structures, barriers or topography.

Construction Noise Fundamentals

Construction is performed in discrete steps or phases, each of which has its own mix of equipment, and consequently, its own noise characteristics. Typical phases of construction include demolition, excavation, grading, and building construction. These various concurrent and sequential phases would change the character of the noise generated on each construction site and, therefore, would change the noise levels as construction progresses. Despite the variety in the type and size of construction equipment, similarities in the dominant noise sources and patterns of operation allow construction related noise ranges to be categorized by work phase. Construction-period noise levels are higher than background ambient noise levels, but eventually cease once construction is complete. Table 3.10-3 shows typical noise levels of construction equipment as measured at a distance of 50 feet from the operating equipment.

Table 3.10-3: Typical Construction Equipment Maximum Noise Levels, L_{max}

Type of Equipment	Specification Maximum Sound Levels for Analysis (dBA at 50 feet)
Impact Pile Driver	95
Auger Drill Rig	85
Vibratory Pile Driver	95
Jackhammers	85
Pneumatic Tools	85
Pumps	77
Scrapers	85
Cranes	85
Portable Generators	82

Table 3.10-3 (cont.): Typical Construction Equipment Maximum Noise Levels, L_{max}

Type of Equipment	Specification Maximum Sound Levels for Analysis (dBA at 50 feet)
Rollers	85
Dozers	85
Tractors	84
Front-End Loaders	80
Backhoe	80
Excavators	85
Graders	85
Air Compressors	80
Dump Truck	84
Concrete Mixer Truck	85
Pickup Truck	55
Source: FHWA 2018. Highway Construction Noise Handbook, September 2018.	

Noise from Multiple Sources

Because sound pressure levels in decibels are based on a logarithmic scale, they cannot be added or subtracted in the usual arithmetical way. Therefore, sound pressure levels in decibels are logarithmically added on an energy summation basis. In other words, adding a new noise source to an existing noise source, both producing noise at the same level, will not double the noise level. Instead, if the difference between two noise sources is 10 dBA or more, the louder noise source will dominate and the resultant noise level will be equal to the noise level of the louder source. In general, if the difference between two noise sources is 0 dBA to 1 dBA, the resultant noise level will be 3 dBA higher than the louder noise source, or both sources if they are equal. If the difference between two noise sources is 2 dBA to 3 dBA, the resultant noise level will be 2 dBA above the louder noise source. If the difference between two noise sources is 4 dBA to 10 dBA, the resultant noise level will be 1 dBA higher than the louder noise source.

Characteristics of Vibration

Groundborne vibration consists of rapidly fluctuating motion through a solid medium, specifically the ground, that has an average motion of zero and in which the motion's amplitude can be described in terms of displacement, velocity, or acceleration. The effects of groundborne vibration typically only causes a nuisance to people, but in extreme cases, excessive groundborne vibration has the potential to cause structural damage to buildings. Although groundborne vibration can be felt outdoors, it is typically only an annoyance to people indoors where the associated effects of the shaking of a building can be notable. Groundborne noise is an effect of groundborne vibration and

since it is produced from noise radiated from the motion of the walls and floors of a room, it only exists indoors and may consist of the rattling of windows or dishes on shelves.

Several different methods are used to quantify vibration amplitude such as the maximum instantaneous peak in the vibrations velocity, which is known as the peak particle velocity (PPV) or the root mean square (rms) amplitude of the vibration velocity. Because of the typically small amplitudes of vibrations, vibration velocity is often expressed in decibels—denoted as LV—and is based on the reference quantity of 1 micro inch per second (inch/second). To distinguish vibration levels expressed in decibels from noise levels expressed in decibels, the unit is written as "VdB."

Although groundborne vibration can be felt outdoors, it is typically only an annoyance to people indoors where the associated effects of the shaking of a building can be notable. When assessing annoyance from groundborne vibration, vibration is typically expressed as rms velocity in units of decibels of 1 micro-inch/second, with the unit written in VdB. Typically, developed areas are continuously affected by vibration velocities of 50 VdB or lower. Human perception to vibration starts at levels as low as 67 VdB. Annoyance due to vibration in residential settings starts at approximately 70 VdB.

In extreme cases, excessive groundborne vibration has the potential to cause structural damage to buildings. Common sources of groundborne vibration include construction activities such as blasting, pile driving and operating heavy earthmoving equipment. However, construction vibration impacts on building structures are generally assessed in terms of PPV. For purposes of this analysis, plan-related impacts are expressed in terms of PPV. Typical vibration source levels from construction equipment are shown in Table 3.10-4.

Table 3.10-4: Vibration Levels of Construction Equipment

Construction Equipment	PPV at 25 Feet (inches/second)	rms Velocity in Decibels (VdB) at 25 Feet
Water Trucks	0.001	57
Scraper	0.002	58
Bulldozer–small	0.003	58
Jackhammer	0.035	79
Concrete Mixer	0.046	81
Concrete Pump	0.046	81
Paver	0.046	81
Pickup Truck	0.046	81
Auger Drill Rig	0.051	82
Backhoe	0.051	82
Crane (Mobile)	0.051	82
Excavator	0.051	82
Grader	0.051	82

Table 3.10-4 (cont.): Vibration Levels of Construction Equipment

Construction Equipment	PPV at 25 Feet (inches/second)	rms Velocity in Decibels (VdB) at 25 Feet
Loader	0.051	82
Loaded Trucks	0.076	86
Bulldozer–Large	0.089	87
Caisson drilling	0.089	87
Vibratory Roller (small)	0.101	88
Compactor	0.138	90
Clam shovel drop	0.202	94
Vibratory Roller (large)	0.210	94
Pile Driver (impact-typical)	0.644	104
Pile Driver (impact-upper range)	1.518	112
Source: Compilation of scientific and academic literature, generated by the Federal Transit Administration (FTA) and FHWA.		

The propagation of groundborne vibration is not as simple to model as airborne noise. This is because noise in the air travels through a relatively uniform medium, while groundborne vibrations travel through the earth, which may contain significant geological differences. Factors that influence groundborne vibration include:

- **Vibration source:** Type of activity or equipment, such as impact or mobile, and depth of vibration source;
- **Vibration path:** Soil type, rock layers, soil layering, depth to water table, and frost depth; and
- **Vibration receiver:** Foundation type, building construction, and acoustical absorption.

Among these factors that influence groundborne vibration, there are significant differences in the vibration characteristics when the source is underground compared to at the ground surface. In addition, soil conditions are known to have a strong influence on the levels of groundborne vibration. Among the most important factors are the stiffness and internal damping of the soil and the depth to bedrock. Vibration propagation is more efficient in stiff clay soils than in loose sandy soils, and shallow rock seems to concentrate the vibration energy close to the surface, and can result in groundborne vibration problems at large distance from the source. Factors such as layering of the soil and depth to the water table can have significant effects on the propagation of groundborne vibration. Soft, loose, sandy soils tend to attenuate more vibration energy than hard, rocky materials. Vibration propagation through groundwater is more efficient than through sandy soils. There are three main types of vibration propagation: surface, compression, and shear waves. Surface waves, or Rayleigh waves, travel along the ground's surface. These waves carry most of their

energy along an expanding circular wave front, similar to ripples produced by throwing a rock into a pool of water. P-waves, or compression waves, are body waves that carry their energy along an expanding spherical wave front. The particle motion in these waves is longitudinal (i.e., in a "push-pull" fashion). P-waves are analogous to airborne sound waves. S-waves, or shear waves, are also body waves that carry energy along an expanding spherical wave front. However, unlike P-waves, the particle motion is transverse, or side-to-side and perpendicular to the direction of propagation.

As vibration waves propagate from a source, the vibration energy decreases in a logarithmic nature and the vibration levels typically decrease by 6 VdB per doubling of the distance from the vibration source. As stated above, this drop-off rate can vary greatly depending on the soil type, but it has been shown to be effective enough for screening purposes, in order to identify potential vibration impacts that may need to be studied through actual field tests. The vibration level (calculated below as "PPV") at a distance from a point source can generally be calculated using the vibration reference equation:

PPV= PPV ref * (25/D)^n (inch/second)

Where:

PPV = reference measurement at 25 feet from vibration source
D = distance from equipment to property line
n= vibration attenuation rate through ground

According to Section 7 of the FTA Transit Noise and Vibration Impact Assessment Manual (FTA 2018), an "n" value of 1.5 is recommended to calculate vibration propagation through typical soil conditions.[1]

Existing Noise Levels

Ambient Noise

The existing noise environment in the vicinity of the plan area was documented through a noise monitoring effort performed by FCS in July 2018. Noise monitoring locations are shown in Exhibit 3.10-1, and the noise measurement data sheets are contained in Appendix H. A total of three short-term noise measurements were taken.

These measurements provide a baseline for any potential noise impacts that may be created from development of the proposed plan.

Short-term Noise Measurements

Short-term noise monitoring was conducted on Tuesday, July 10, 2018, between 1:52 p.m. and 3:01 p.m. The noise measurements were taken during the midday hours as the midday hours typically have the highest daytime noise levels in urban environments. At the start of the noise monitoring, the sky was clear with average wind speeds of 1.9 miles per hour (mph). The field survey noted that noise in the vicinity of the plan area is generally characterized by traffic traveling along local roadways. The short-term measurement results are summarized in Table 3.10-5.

[1] Federal Transit Administration (FTA). Transit Noise and Vibration Impact Assessment. September 2018.

Table 3.10-5: Existing Noise Level Measurements in the Vicinity of the Plan Area

Site ID #	Description	L_{eq}	L_{min}	L_{max}
ST-1	On the plan area's southeastern corner, approximately 100 feet north of Oak Park Boulevard	48.2	43.0	59.0
ST-2	Approximately 30 feet southwest from the center of the Santa Barbara Road and Monticello Avenue intersection	51.1	46.9	63.3
ST-3	Approximately 100 feet northeast from the center of the Oak Park Boulevard and Monte Cresta Avenue intersection	58.8	48.2	73.8

Note:
The Site ID corresponds to locations shown in Exhibit 3.10-1.
Source: FCS 2018.

Long-term Noise Measurements

The dominant noise source within the vicinity of the plan area is traffic on local roadways; therefore, no long-term noise measurement is needed to determine existing noise levels within the plan area.

Traffic Noise

In addition to the ambient noise measurements, existing traffic noise on local roadways in the areas surrounding the plan area was calculated to quantify existing traffic noise levels, based on the existing traffic volumes included in Appendix J. Existing traffic noise levels along selected roadway segments in the vicinity of the plan area were modeled using the FHWA Traffic Noise Prediction Model (FHWA-RD-77-108). Site-specific information is entered, such as roadway traffic volumes, roadway active width, source-to-receiver distances, travel speed, noise source and receiver heights, and the percentages of automobiles, medium trucks, and heavy trucks that the traffic is made up of throughout the day, amongst other variables. The modeled average daily traffic (ADT) volumes were obtained by multiplying the AM peak-hour intersection traffic volumes from the plan-specific traffic study by a factor of eight (Fehr & Peers 2018). The model inputs and outputs, including the 60 dBA, 65 dBA, and 70 dBA L_{dn} traffic noise contour distances, are provided in Appendix I. A summary of the modeling results are shown in Table 3.10-6. The modeling results show that existing traffic noise levels on roadway segments adjacent to the plan area range up to 63.7 dBA CNEL as measured at 50 feet from the centerline of the outermost travel lane.

Table 3.10-6: Existing Traffic Noise Levels in the Vicinity of the Plan Area

	CNEL (dBA) 50 feet from Centerline of Outermost Lane				
Roadway Segment	ADT	Centerline to 70 CNEL (feet)	Centerline to 65 CNEL (feet)	Centerline to 60 CNEL (feet)	CNEL (dBA) 50 feet from Centerline of Outermost Lane
Oak Park Boulevard—Monte Cresta Avenue to Monticello Avenue	8,400	< 50	< 50	74	61.8
Oak Park Boulevard—Monticello Avenue to Manor Avenue	12,800	< 50	< 50	98	63.7

Table 3.10-6 (cont.): Existing Traffic Noise Levels in the Vicinity of the Plan Area

Roadway Segment	CNEL (dBA) 50 feet from Centerline of Outermost Lane				
	ADT	Centerline to 70 CNEL (feet)	Centerline to 65 CNEL (feet)	Centerline to 60 CNEL (feet)	CNEL (dBA) 50 feet from Centerline of Outermost Lane
Monte Cresta Avenue—Santa Barbara Road to Oak Park Boulevard	1,700	< 50	< 50	< 50	53.0
Santa Barbara Road—Monte Cresta Avenue to Monticello Avenue	1,800	< 50	< 50	< 50	53.3
Monticello Avenue—Santa Barbara Road to Future Driveway	3,800	< 50	< 50	< 50	56.5
Monticello Avenue—Future Driveway to Oak Park Boulevard	4,100	< 50	< 50	< 50	56.9

Notes:
Modeling results do not take into account mitigating features such as topography, vegetative screening, fencing, building design, or structure screening. Rather, they assume a reasonable worst-case of having a direct line of site on flat terrain.
ADT = Average Daily Traffic
Source: FCS 2018.

Existing Stationary Noise Levels

Commercial and residential land uses near the plan area generate noise from typical parking lot activities, rooftop mechanical ventilation systems, and landscaping and maintenance equipment activities. These activities are point sources of noise that affect the existing noise environment. Parking lot activities, such as small delivery vehicle loading/unloading and engines starting or doors shutting, typically generate approximately 60 dBA to 70 dBA L_{max} at 50 feet. To the north of the proposed park is the Pleasant Hill Middle School with associated recreational facilities. The primary stationary noise sources associated with this land use include parking lot activities and outdoor recreational activities. The East Bay Municipal Utilities District (EBMUD) trail is located adjacent to the eastern border of the plan area; primary noise from this source is from trail users conversing. The existing ambient noise measurements results range from approximately 59 dBA to 74 dBA L_{max}, which is representative of the daytime noise levels experienced from these types of activities near the plan area.

Noise-Sensitive Land Uses

Noise-sensitive land uses generally consist of those uses where exposure to noise would result in adverse effects, as well as uses for which quiet is an essential element of their intended purpose. Residential dwellings are of primary concern, because of the potential for increased and prolonged exposure of individuals to both interior and exterior noise levels. Other typical noise-sensitive land uses include hospitals, convalescent facilities, hotels, religious institutions, libraries, and other uses where low noise levels are essential.

Proximate to Plan Area

Noise-sensitive land uses in the vicinity of the plan area include single-family residential buildings located immediately south of Oak Park Boulevard and east of the plan area. The adjacent neighborhoods to the south and east contain predominately low-density residential. Pleasant Hill Middle School buildings are also located approximately 530 feet north of the plan area boundary, across the Middle School field.

Plan Area

Noise–sensitive land uses within the plan area include the existing library.

3.10.3 - Regulatory Framework

Federal Regulations

The adverse impact of noise was officially recognized by the federal government in the Noise Control Act of 1972, which serves three purposes:

- Promulgating noise emission standards for interstate commerce
- Assisting state and local abatement efforts
- Promoting noise education and research

The Federal Office of Noise Abatement and Control (ONAC) was initially tasked with implementing the Noise Control Act. However, the ONAC has since been eliminated, leaving the development of federal noise policies and programs to other federal agencies and interagency committees.

Among the agencies now regulating noise are the United States Department of Transportation (DOT), which assumed a significant role in noise control through its various operating agencies; and the Federal Aviation Administration (FAA), which regulates noise of aircraft and airports. Surface transportation system noise is regulated by a host of agencies, including the FTA.

Since the federal government has preempted the setting of standards for noise levels that can be emitted by transportation sources, local jurisdictions are limited to regulating the noise generated by the transportation system through nuisance abatement ordinances and land use planning. The federal government actively advocates that local jurisdictions use their land use regulatory authority to arrange new development in such a way that "noise sensitive" uses are either prohibited from being sited adjacent to a highway, or alternatively, that developments are planned and constructed in such a manner that minimize potential noise impacts.

Federal Transit Administration

The FTA has established industry-accepted standards for vibration impact criteria and impact assessment. These guidelines are published in the FTA's Transit Noise and Vibration Impact Assessment Manual (FTA 2018). The FTA guidelines include thresholds for construction vibration impacts for various structural categories, as shown in Table 3.10-7.

Table 3.10-7: Federal Transit Administration Construction Vibration Impact Criteria

Building Category	PPV (inch/second)	Approximate VdB
I. Reinforced—Concrete, Steel or Timber (no plaster)	0.5	102
II. Engineered Concrete and Masonry (no plaster)	0.3	98
III. Non-engineered Timber and Masonry Buildings	0.2	94
IV. Buildings Extremely Susceptible to Vibration Damage	0.12	90
Source: FTA 2018.		

State

California General Plan Guidelines

Established in 1973, the California Department of Health Services Office of Noise Control was instrumental in developing regularity tools to control and abate noise for use by local agencies. One significant model is the "Land Use Compatibility for Community Noise Environments Matrix," which allows the local jurisdiction to delineate compatibility of sensitive uses with various incremental levels of noise.[2]

Government Code Section 65302 mandates that the legislative body of each county and city in California adopt a noise element as part of its comprehensive general plan. The local noise element must recognize the land use compatibility guidelines published by the State Department of Health Services. The guidelines rank noise/land use compatibility in terms of normally acceptable, conditionally acceptable, normally unacceptable, and clearly unacceptable. The proposed plan is also subject to review under the State of California Environmental Quality Act (CEQA). Appendix G of the CEQA Guidelines provides impact thresholds for potential noise and vibration impacts.

California Building Standards Code

The State of California has established regulations that help prevent adverse impacts to occupants of buildings located near noise sources. Referred to as the "State Noise Insulation Standard," it requires buildings to meet performance standards through design and/or building materials that would help to reasonably offset any significant noise source in the vicinity of the receptor. The State of California has established noise insulation standards for new hotels, motels, apartment houses, and dwellings (other than single-family detached housing). These requirements are provided in the 2016 California Building Standards Code (CBC) (California Code of Regulations [CCR] Title 24).[3] As provided in the CBC, the noise insulation standards set forth an interior standard of 45 dBA CNEL as measured from within the structure's interior. When such structures are located within a 65-dBA CNEL (or greater) exterior noise contour associated with a traffic noise along a roadway, an acoustical analysis is required to ensure that interior levels do not exceed the 45-dBA CNEL threshold. Title 24 standards are typically enforced by local jurisdictions through the building permit application process.

[2] California Department of Health, Office of Noise Control, "Land Use Compatibility for Community Noise Environments Matrix," 1976.
[3] California Building Standards Commission. 2017. California Building Standards Code (CCR Title 24), January 1.

For limiting noise transmitted between adjacent dwelling units, the noise insulation standards specify the extent to which walls, doors, and floor-ceiling assemblies must block or absorb sound. For limiting noise from exterior noise sources, the noise insulation standards set an interior standard of 45 dBA CNEL in any habitable room with all doors and windows closed. In addition, the standards require preparation of an acoustical analysis demonstrating the manner in which dwelling units have been designed to meet this interior standard, where such units are proposed in an area with exterior noise levels greater than 60 dBA CNEL. There are no additional State level noise regulations that are applicable to the proposed plan.

Local

The plan area is located within the City of Pleasant Hill. The City of Pleasant Hill addresses noise in the Pleasant Hill 2003 General Plan, Safety and Noise Element,[4] and in the Pleasant Hill Municipal Code.[5]

Pleasant Hill 2003 General Plan

Safety and Noise Element

The City of Pleasant Hill adopted the Pleasant Hill 2003 General Plan in July 2003. The objective of the Pleasant Hill 2003 General Plan, Safety and Noise Element, is to protect persons from noise that interferes with human activity or causes health problems. To assist with meeting this objective, the Pleasant Hill 2003 General Plan has established Acceptable Noise Level Guidelines (Guidelines) for determining land use compatibility. These Guidelines are summarized below.

The land use categories listed in Table SN3 of the Pleasant Hill 2003 General Plan, Safety and Noise Element, that most closely apply to the proposed plan are Residential–Low Density Single-Family, Duplex, Mobile Homes; Schools, Libraries, Churches, Hospitals, Nursing Homes; and Playgrounds, Neighborhood Parks (refer to Exhibit 3.10-2).

For example, under the Residential–Low Density Single-Family, Duplex, Mobile Homes designation, noise environments with ambient noise levels of up to 60 dBA CNEL are considered “normally acceptable” for this type of new land use development. While noise environments with ambient noise levels ranging from 55 dBA to 70 dBA CNEL are considered “conditionally acceptable” for this type of land use development. Under the “conditionally acceptable” designation, the specified land use may be permitted only after detailed analysis of the noise reduction requirements and needed noise insulation features have been included in the design. Conventional construction, but with closed windows and fresh air supply systems will normally suffice. Noise environments with ambient noise levels in excess of 70 dBA CNEL are considered “normally unacceptable” for this type of land use development.

[4] City of Pleasant Hill. 2003. Pleasant Hill 2003 General Plan. Safety and Noise Element.
[5] City of Pleasant Hill. 2018. Pleasant Hill Municipal Code. Website: http://www.codepublishing.com/CA/PleasantHill/. Accessed on September 21, 2018.

Source: Bing Aerial Imagery.

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Feet

Exhibit 3.10-1
Noise Measurement Location Map

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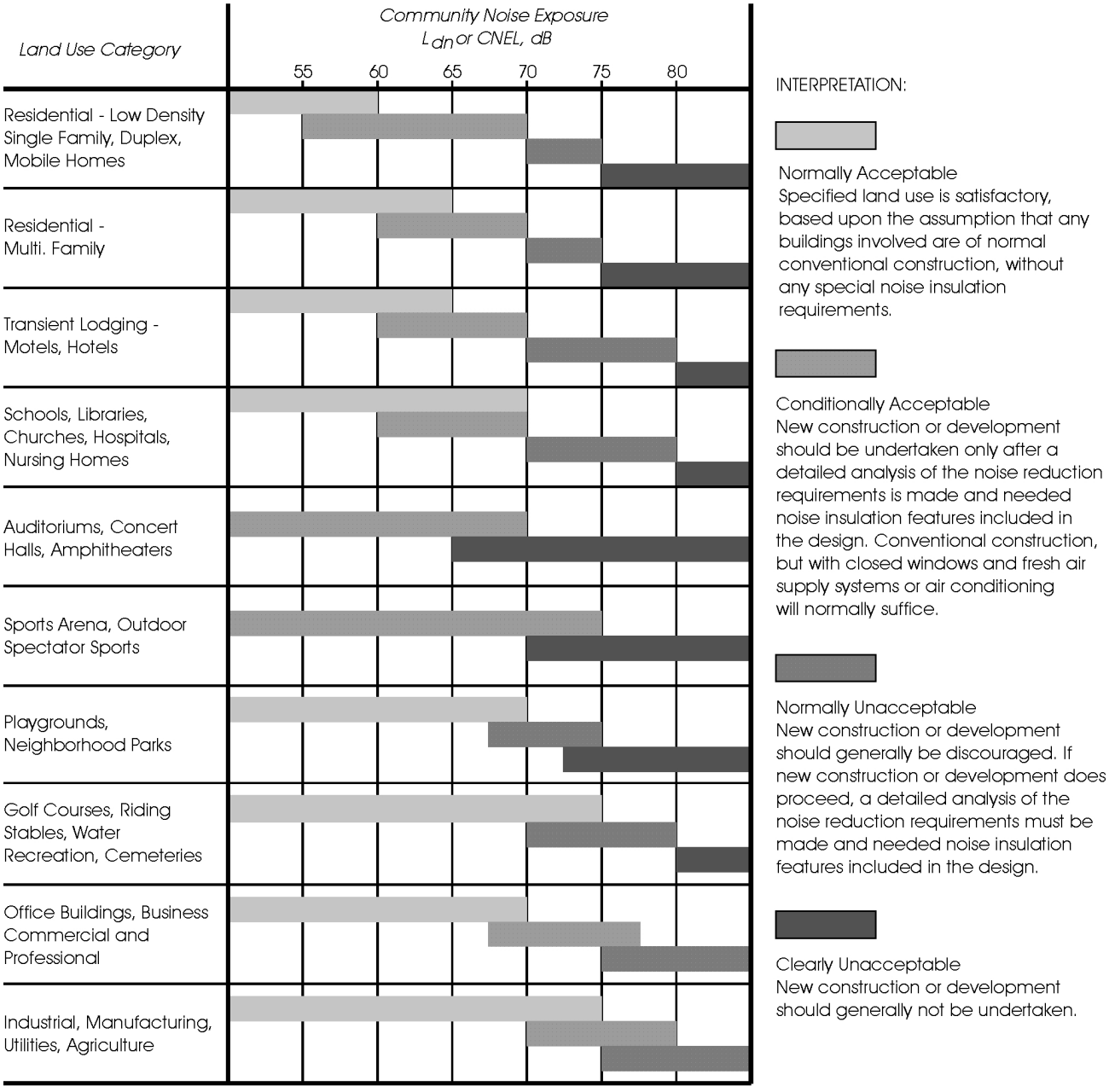

Source: California Office of Planning and Research, 1998 General Plan Guidelines

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Exhibit 3.10-2
Acceptable Noise Levels

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The following are the noise and vibration goals and policies of the Noise Element of the Pleasant Hill 2003 General Plan:

- **Goal 7:** Protect persons from noise that interferes with human activity or causes health problems.
- **Policy 7A:** Require new development projects to be designed and constructed to meet acceptable noise level standards adopted by the City.
- **Policy 7B:** Evaluate the noise impacts of development based on the potential for significant increases in noise levels, in addition to acceptability standards.

Pleasant Hill Municipal Code

The City of Pleasant Hill establishes noise performance standards for community noise sources and permissible hours for construction activities in its Pleasant Hill Municipal Code. These provisions are summarized below:

Noise (Section 9.15.040)

According to this ordinance, in residential land use districts, it is unlawful for any persons to operate or perform construction or repair work on a building, structure or project, or to operate a pile driver, steam shovel, pneumatic hammer, derrick, steam or electric hoist, or other construction-type device on City-recognized holidays as designated by City Council resolution, and on Monday through Friday, prior to 7:30 a.m. and after 7:00 p.m. on each day and on Saturdays, prior to 9:00 a.m. and after 6:00 p.m. This prohibition does not apply to emergency work. Only a special permit from the City Manager may exempt other construction activities from these restrictions.

Performance Standards (Section 18.50.060)

The Pleasant Hill Municipal Code organizes its noise performance standards by the type of land use receiving noise. According to this ordinance, no use shall create ambient noise levels exceeding 50 dBA CNEL as measured at the property line of a receiving residential and neighborhood business district zone. Furthermore, the noise standards contained in this ordinance shall be modified as follows to account for the effects of time and duration on the impact of noise levels:

- Noise that is produced for no more than a cumulative period of 5 minutes in any hour may exceed the noise standards by up to 5 dBA.
- Noise that is produced for no more than a cumulative period of 1 minute in any hour may exceed the standards above by up to 10 dBA.
- In residential zones, the noise standard shall be 5 dBA lower between 10:00 p.m. and 7:00 a.m.

Additionally, Pleasant Hill Municipal Code, Section 18.50.060, restricts any activity or process that would produce groundborne vibrations that are perceptible without instruments by a reasonable person at the property lines of a site.

3.10.4 - Impacts and Mitigation Measures

Significance Criteria

According to 2019 CEQA Guidelines updated Appendix G, to determine whether impacts related to noise and vibration are significant environmental effects, the following questions are analyzed and evaluated.

Would the proposed plan:

a) Generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the plan area in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

b) Cause a significant environmental impact due to a conflict with a land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?[6]

c) Generate excessive groundborne vibration or groundborne noise levels?

d) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within 2 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?

Approach to Analysis

Noise Measurement Methodology

The existing ambient noise levels within the plan area were documented through a noise monitoring effort conducted within the plan area on July 10, 2018, by noise technicians. The field survey noted that noise in the vicinity of the plan area is generally characterized by vehicle traffic on the local roadways.

The noise measurements were taken using Larson-Davis Model LxT2 Type 2 precision sound level meters programmed in "slow" mode to record noise levels in "A" weighted form. The sound level meter was calibrated using a Larson-Davis calibrator, Model CAL 150. The accuracy of the calibrator is maintained through a program established through the manufacturer and is traceable to the National Bureau of Standards. All noise level measurement equipment meets American National Standards Institute specifications for sound level meters (S1.4 1983, identified in Chapter 19.68.020.AA).

Traffic Noise Modeling Methodology

The level of traffic noise depends on the three primary factors: (1) the volume of the traffic, (2) the speed of the traffic, and (3) the number of trucks in the flow of traffic. Generally, the loudness of traffic noise is increased by heavier traffic volumes, higher speeds, and greater number of trucks. Vehicle noise is a combination of the noise produced by the engine, exhaust, and tires. Because of the logarithmic nature of traffic noise levels, a doubling of the traffic volume (assuming that the

[6] This significance criteria question is from the Land Use and Planning section of the CEQA Guidelines Appendix G checklist questions. However, since this question addresses impacts related to conflicts with land use plans, which would include project-related conflicts related to noise land use compatibility standards of the Pleasant Hill 2003 General Plan, Safety and Noise Element, it is also included here.

speed and truck mix do not change) results in a noise level increase of 3 dBA. Based on the FHWA community noise assessment criteria, this change is "barely perceptible." For reference, a doubling of perceived noise levels would require an increase of approximately 10 dBA. The truck mix on a given roadway also has an effect on community noise levels. As the number of heavy trucks increases and becomes a larger percentage of the vehicle mix, adjacent noise levels increase.

The FHWA highway traffic noise prediction model (FHWA RD-77-108) was used to evaluate traffic-related noise conditions in the vicinity of the plan area. Traffic data used in the model were obtained from the traffic impact analysis prepared by Fehr & Peers for the plan area. The resultant noise levels were weighed and summed over a 24-hour period in order to determine the CNEL values. The FHWA-RD-77-108 Model arrives at a predicted noise level through a series of adjustments to the Reference Energy Mean Emission Level.

Adjustments are then made to this level to account for the roadway active width (i.e., the distance between the center of the outermost travel lanes on each side of the roadway); the total ADT; the percentage of ADT that flows during the day, evening, and night; the travel speed; the vehicle mix on the roadway; a percentage of the volume of automobiles, medium trucks, and heavy trucks; the roadway grade; the angle of view of the observer exposed to the roadway; and the site conditions ("hard" or "soft") as they relate to the absorption of the ground, pavement, or landscaping.

The model analyzed the noise impacts from the nearby roadways within the vicinity of the plan area, which consists of the area that has the potential to be impacted by the on-site noise sources, as well as traffic generated by the proposed plan on the nearby roadways. Analyses of the roadways were based on a single-lane-equivalent noise source combining both directions of travel. A single-lane-equivalent noise source occurs when the vehicular traffic from all lanes is combined into a theoretical single-lane that has a width equal to the distance between the two outside lanes of a roadway, which provides almost identical results to analyzing each lane separately where elevation changes are minimal. The roadway traffic noise model assumptions and outputs are provided in Appendix I.

Vibration Methodology

The City of Pleasant Hill has not adopted criteria for construction groundborne vibration impacts. Therefore, the FTA's vibration impact criterion is utilized to evaluate potential vibration impacts resulting from construction activities. The FTA has established industry accepted standards for vibration impact criteria and impact assessment. These guidelines are published in its Transit Noise and Vibration Impact Assessment document,[7] and are summarized in the regulatory discussion above. However, the City has established guidance for determining vibration impacts from on-going activities. The Pleasant Hill Municipal Code performance standards restrict any activity or process that would produce groundborne vibrations that are perceptible without instruments by a reasonable person at the property lines of a site.

Specific Thresholds of Significance

For purposes of this analysis, the following thresholds are used to evaluate the significance of noise and vibration resulting from implementation of the proposed plan.

[7] Federal Transit Administration (FTA). 2018. Transit Noise and Vibration Impact Assessment Manual. September 2018.

- A significant impact would occur if the implementation of the proposed plan would generate a substantial temporary or permanent increase in ambient noise levels in the vicinity in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. For single-family residential land use developments, ambient noise levels up to 60 dBA CNEL are considered "normally acceptable." The City's noise ordinance establishes maximum noise standards for receiving residential land uses of 50 dBA CNEL.
- A significant impact would occur if the implementation of the proposed plan would conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. The compatibility standards for specific land uses are identified in the impact discussion below. For example, the City's normally acceptable land use compatibility threshold for new residential land use development is 60 dBA CNEL.
- A significant impact would occur if the implementation of the proposed plan would generate groundborne vibration or groundborne noise levels in excess of applicable standards. The FTA establishes impact assessment criteria for construction. The FTA threshold of 0.2 inch/second PPV is the potential damage criteria threshold for buildings of non-engineer timber and masonry construction. The City establishes vibration performance threshold for on-going activities. The City has established a threshold that groundborne vibration from ongoing operations should not exceed levels that are perceptible without instruments by a reasonable person at the property lines of a site.
- For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, a significant impact would occur if the implementation of the proposed plan would expose people residing or working in the project area to excessive noise levels.

Impact Evaluation

Substantial Noise Increase in Excess of Standards

Impact NOI-1:	**The proposed plan would generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the plan area in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.**

As discussed below, operational noise would not result in a significant impact. For construction noise, restricting construction activities to normal business hours, as required by Mitigation Measure (MM) NOI-1, would result in impacts related to site preparation, grading, and construction that are less than significant with mitigation.

Construction

Civic Project and Residential Project

According to the Pleasant Hill 2003 General Plan, Safety and Noise Policy 7B, new development projects must evaluate noise impacts of their development based on the potential for significant increases in noise levels. The City has not established numeric thresholds for construction noise, rather they have established restrictions on the permissible hours for noise producing construction

activities in order to minimize impacts on sensitive receptors at night. Therefore, for purposes of this analysis, a significant impact would occur if plan-related, noise producing construction activities would result in generation of a substantial temporary increase in ambient noise levels outside of the permissible hours for construction that would result in annoyance or sleep disturbance of nearby sensitive receptors. Noise impacts from construction activities associated with the proposed plan would be a function of the noise generated by construction traffic, construction equipment, equipment location, sensitivity of nearby land uses, and the timing and duration of the construction activities. A discussion of the potential impacts associated with each of these types of activities is provided below.

Construction Traffic Noise

One type of noise impact that could occur during construction would result from the increase in traffic flow on local streets associated with the transport of workers, equipment, and materials to and from the plan area. The transport of workers and construction equipment and materials to the plan area would incrementally increase noise levels on access roads leading to the site. Because construction workers and construction equipment would use existing routes, noise from passing trucks would be similar to existing vehicle-generated noise on these local roadways. Furthermore, construction trips would not be expected to double the traffic volumes along any roadway segment in the vicinity of the plan area and would thus not result in a perceptible change in existing traffic noise levels. For these reasons, intermittent noise from trucks would be minor when averaged over a longer interval and would not be expected to exceed existing peak noise levels in the vicinity of the plan area. Therefore, construction-related noise impacts associated with worker and equipment transport to the plan area would be less than significant.

Construction Equipment Noise

The second type of short-term noise impact is related to noise generated during site-preparation, grading, and construction activities. Construction is performed in discrete steps, each of which has its own mix of equipment, and consequently, its own noise characteristics. These various sequential phases would change the character of the noise generated on-site. Thus, the noise levels vary as construction progresses through each phase. Despite the variety in the types and sizes of construction equipment, similarities in the dominant noise sources and patterns of operation allow construction noise ranges to be categorized by work phase. Table 3.10-3 shows typical noise levels of construction equipment as measured at a distance of 50 feet from the operating equipment.

The site preparation phase, which includes excavation and grading activities, generate the highest noise levels because the noisiest construction equipment is earthmoving equipment. Earthmoving equipment includes excavating machinery and compacting equipment, such as bulldozers, draglines, backhoes, front loaders, roller compactors, scrapers, and graders. Typical operating cycles for these types of construction equipment may involve 1 or 2 minutes of full power operation followed by 3 or 4 minutes at lower power settings. Operating cycles for these types of construction equipment may involve 1 or 2 minutes of full power operation followed by 3 or 4 minutes at lower power settings.

Construction of the proposed plan is expected to require the use of scrapers, bulldozers, water trucks, haul trucks, and pickup trucks. The foundation construction technique for proposed buildings would involve spread footings, so impact equipment such as pile drivers is not expected to be used during construction. Based on the information provided in Table 3.10-3 above, the maximum noise level

generated by each scraper is assumed to be 85 dBA L_{max} at 50 feet from this equipment. Each bulldozer would generate 85 dBA L_{max} at 50 feet. The maximum noise level generated by graders is approximately 85 dBA L_{max} at 50 feet. Each doubling of sound sources with equal strength increases the noise level by 3 dBA. Assuming that each piece of construction equipment operates at some distance from the other equipment, a reasonable worst-case combined noise level during this phase of construction would be 90 dBA L_{max} at a distance of 50 feet from the acoustic center of a construction area. This would result in a reasonable worst-case hourly average of 86 dBA L_{eq}. The acoustic center reference is used because construction equipment must operate at some distance from one another within the plan area, and the combined noise level as measured at a point equidistant from the sources (acoustic center) would be the worst-case maximum noise level. The effect on sensitive receptors is evaluated below.

The nearest off-site noise-sensitive receptors to the plan area are the single-family residential land uses located directly south, across Oak Park Boulevard. The nearest of these existing noise-sensitive receptors would be located as close as 120 feet from the acoustic center of the plan area's proposed construction where multiple pieces of heavy construction equipment would operate simultaneously. At this distance, worst-case construction noise levels could range up to approximately 82 dBA L_{max}, intermittently, and could have an hourly average of up to 78 dBA L_{eq}, at the façade of the closest single-family residential homes. These noise levels would be intermittent and would be reduced as equipment moves over the plan area further from adjacent sensitive receptors.

Although construction of the proposed plan could result in relatively high single event noise exposure, causing an intermittent noise nuisance, which would be a potentially significant impact. The effect of construction noise levels on longer-term (hourly or daily) ambient noise levels would be small, but small increases could result in annoyance or sleep disturbances at nearby sensitive receptors if construction activities are not limited in compliance with the permissible construction hours established by the Pleasant Hill Municipal Code.

The Pleasant Hill Municipal Code limits noise producing construction activities to the hours between 7:30 a.m. and 7:00 p.m. on weekdays, and 9:00 a.m. and 6:00 p.m. on Saturdays. In addition, construction activities are restricted from taking place at any time on City-recognized holidays as designated by the City Council resolution.

In addition to restricting construction activities to the allowed time-periods as specific by the Municipal Code, MM NOI-1 also requires the implementation of best management noise reduction techniques and practices. Restricting construction activities to the allowed time-periods and implementing best management noise reduction techniques and practices as outlined in MM NOI-1 would ensure that construction noise levels would not result in a substantial temporary increase in ambient noise levels that would result in annoyance or sleep disturbance of nearby sensitive receptors. Therefore, with implementation of MM NOI-1, temporary construction noise impacts would be reduced to less than significant.

Construction Noise Impact on Wildlife

Civic Project

Potential impacts to wildlife that could be located within the Grayson Creek Corridor, including potential noise impacts from construction, are analyzed in Section 3.3, Biological Resources. As described therein, MM BIO-1a through MM BIO-1c requires pre-construction clearance surveys for nesting birds, nesting bats roosts, and active turtle dens, and requires the creation of buffer zones for any of these species should they be found on site. Therefore, potential construction noise impacts on wildlife would be less than significant with mitigation.

MM BIO-2b would require the Civic Project to obtain a California Department of Fish and Wildlife (CDFW) Streambed Alteration Agreement Permit, implementation of which would mitigate potential construction impacts (including noise impacts) on riparian habitat and wildlife per applicable CDFW agency standards. Therefore, potential construction noise impacts on wildlife located within the Civic Project would be less than significant with mitigation.

Residential Project

MM BIO-1a and MM BIO-1b requires pre-construction clearance surveys for nesting birds and nesting bats roosts, and the creation of buffer zones for these species should they be found on site. Therefore, potential construction noise impacts on wildlife within the Residential Project would be less than significant with mitigation.

Operation

The proposed plan would result in an increase in traffic on local roadway segments in the vicinity of the plan area. In addition, implementation of the proposed plan would introduce new stationary noise sources to the ambient noise environment, including new mechanical ventilation equipment. The potential for a substantial increase in ambient noise levels resulting from these noise sources is analyzed below.

Traffic Noise

Civic Project and Residential Project

According to the Pleasant Hill 2003 General Plan, Safety and Noise Policy 7B, new development projects must evaluate traffic noise impacts of their development based on the potential for significant increases in noise levels. For purposes of this analysis, a significant impact would occur if implementation of the Civic Project or Residential project would cause existing traffic noise levels to increase by the following increments and exceed the indicated standard as measured at a receiving land use:

- 5 dBA or more even if the CNEL would remain below normally acceptable levels for a receiving land use.
- 3 dBA or more, thereby causing the CNEL in the vicinity of the plan area to exceed normally acceptable levels and result in noise levels that would be considered conditionally acceptable for a receiving land use.
- 1.5 dBA or more where the CNEL currently exceeds conditionally acceptable levels.

To present a conservative estimate, this analysis assumes the Civic Project and the Residential Project would be operational at the same time. The highest traffic noise level increase with implementation of the proposed plan would occur along Santa Barbara Road between Monte Cresta Avenue and Monticello Avenue under Cumulative Plus Plan conditions. Along this roadway segment, the proposed plan would result in an increase of 0.9 dBA under Cumulative Plus Plan conditions. Existing traffic noise levels along Santa Barbara Road between Monte Cresta Avenue and Monticello Avenue is documented to range up to 53.3 dBA CNEL as measured at 50 feet from the centerline of the outermost travel lane. These noise levels do not exceed the City's normally acceptable land use compatibility threshold; therefore, an increase of 5 dBA or greater above existing background noise levels would be considered significant.

The highest plan-related traffic noise increase of 0.9 dBA is well below the 5 dBA increase that would be considered a substantial permanent increase. No other modeled roadway segment would experience an increase of greater than 0.5 dBA under any of the Plus Plan traffic scenarios. Therefore, plan-related traffic noise level would result in less than significant increases in traffic noise levels along modeled roadway segments. Therefore, the overall operational traffic noise impact would be less than significant.

Stationary Noise

According to the Pleasant Hill 2003 General Plan, Safety and Noise Policy 7B, new development projects must evaluate stationary noise impacts of their development based on the potential for significant increases in noise levels. For purposes of this analysis, a significant impact would occur if operational noise levels generated by stationary noise sources would result in a substantial permanent increase in ambient noise levels in excess of any of the noise performance thresholds established in the Pleasant Hill 2003 Municipal Code. The City's noise ordinance establishes maximum noise standards for receiving residential land uses of 50 dBA CNEL.

Implementation of the proposed plan would include introduction of new stationary noise sources to the existing ambient noise environment. These stationary noise sources would include new mechanical ventilation equipment, parking lot activities, and recreational noise. The potential for a substantial increase in ambient noise levels resulting from these noise sources is analyzed below.

Civic Project—Proposed Park

The proposed park would include new recreational facilities, a parking lot, and a new trail and creek improvements in the Grayson Creek Corridor. In additional, as part of the Civic Project, a potential future pre-cast pedestrian bridge across Grayson Creek, connecting the EBMUD trail to the proposed pedestrian trail on the Civic Project site, may be constructed once funding is secured. The loudest stationary noise source associated with these improvements would be recreational activities. A characteristic of noise is that a doubling of sound sources with equal strength is required to result in a perceptible increase (defined to be a 3 dBA or greater) in noise level. To the north of the proposed park are multiple existing recreational facilities. Implementation of the Civic Project would not result in a doubling of users of recreational activities already occurring in the vicinity of the plan area. Therefore, the Civic Project would not result in a perceptible increase of 3 dBA or greater in existing recreational noise levels as measured at nearby receptors.

The measured ambient noise levels adjacent to proposed park were documented to range up to approximately 51 dBA L_{eq} Therefore, when averaged over a 24-hour period, noise levels from recreational activities would not exceed the City's noise performance thresholds of 50 dBA CNEL as measured at receiving residential land uses. Therefore, the operational stationary source noise impact at the proposed park would be less than significant.

Civic Project—Proposed Library

New stationary noise sources associated with the proposed library include mechanical ventilation equipment, parking lot activity, and recreational activity associated with the new trail improvements in the Grayson Creek Corridor. The loudest of these stationary noise sources would be the mechanical ventilation equipment operations and parking lot activities. These loudest noise sources are quantified and analyzed below.

At the time of preparation of this analysis, details were not available pertaining to proposed mechanical ventilation systems for the proposed library. Therefore, a reference noise level for typical mechanical ventilation systems was used for this analysis. Noise levels from typical mechanical ventilation equipment are anticipated to range up to approximately 60 dBA L_{eq} at a distance of 25 feet. Proposed mechanical ventilation systems would be located at ground level within a walled enclosure. The equipment could be located as close as 150 feet from the nearest off-site sensitive receptor which is a single-family residential home located on the south side of Oak Park Boulevard between Monticello Avenue and Eccleston Avenue. At this distance, and with attenuation that the walled enclosure would provide, noise levels generated by mechanical ventilation equipment would attenuate to less than 44 dBA L_{eq} at this nearest residential receptor. Thus, noise levels from new mechanical ventilation equipment would not exceed the City's noise performance thresholds of 50 dBA CNEL as measured at nearby sensitive receptors. Therefore, the operational stationary source noise impact would be less than significant.

Typical parking lot activities, which include people conversing, doors shutting, or vehicles idling, would generate noise levels of approximately 60 dBA to 70 dBA L_{max} at 50 feet. Parking activities at the proposed library's parking areas could be located as close 150 feet from the nearest off-site sensitive receptor which is a single-family residential home located on Oak Park Boulevard between Monte Cresta Avenue and Manor Avenue. At this distance, noise levels generated by parking lot activities would attenuate to below 60 dBA L_{max} at the property line of the nearest residential receptor. However, the effect of these activities on longer-term (hourly or daily) noise levels would be small because these events would occur sporadically throughout the day. The resulting noise levels would not exceed the City's noise performance thresholds of 50 dBA CNEL or 45 dBA L_{eq} between 10:00 p.m. and 7:00 a.m., at the property line of any property zoned for residential land use. In addition, existing traffic noise levels along Oak Park Boulevard adjacent to this nearest receptor range up to 61.8 dBA CNEL. Therefore, noise from parking lot activities would not be perceptible above background ambient noise levels at the nearest off-site residential receptor. Therefore, noise levels generated by parking lot activities would have a less than significant impact to sensitive off-site receptors. Therefore, the operational stationary source noise impact at the proposed library would be less than significant.

Residential Project

The loudest stationary noise source associated with the proposed residences would be the use of proposed mechanical ventilation systems. At the time of preparation of this analysis, details were not available pertaining to proposed mechanical ventilation systems. Therefore, a reference noise level for typical mechanical ventilation systems was used for this analysis. Noise levels from typical residential mechanical ventilation equipment are anticipated to range up to approximately 60 dBA L_{eq} at a distance of 25 feet. Proposed mechanical ventilation systems could be located as close as 100 feet from the nearest off-site sensitive receptor, which is a single-family residential home located on the south side of Oak Park Boulevard between Monte Cresta Avenue and Manor Avenue. At this distance, noise levels generated by mechanical ventilation equipment would attenuate to less than 48 dBA L_{eq} at this nearest residential receptor. These noise levels would not exceed the City's noise performance thresholds of 50 dBA CNEL. Therefore, the operational stationary source noise impact associated with the Residential Project would be less than significant.

Operational Noise Impact on Wildlife

Civic Project

Potential impacts to wildlife located within the Grayson Creek Corridor, including potential noise impacts from operation of the Civic Project, are analyzed in Section 3.3, Biological Resources. According to this analysis, noise emitted from the proposed park will not have a significant impact on wildlife. As noted in the Impact BIO-1 and Impact BIO-2, potential impacts to wildlife potentially located within the Grayson Creek Corridor would be mitigated through active avoidance measures and the procurement of the applicable regulatory permits. The agreement with regulatory agencies would require mitigation to potential impacts to wildlife and or riparian habitat during operation of the Civic Project. Therefore, impacts to special-status species would be less than significant. Furthermore, as shown in the biological resources impact discussion, impacts related to the proposed plan's potential effect on sensitive natural communities, wetlands, and fish or wildlife movement corridor were determined to be limited to construction impacts. Therefore, no respective operational noise impacts would occur.

Level of Significance Before Mitigation

Potentially Significant (Civic Project and Residential Project)

Mitigation Measures

Implement MM BIO-1a and MM BIO-1b (Civic Project and Residential Project), MM BIO-1c (Civic Project Only), MM BIO-2 (Civic Project Only), and the following measure:

MM NOI-1 Implement Noise-reduction Measures During Construction

Civic Project and Residential Project: To reduce potential construction noise impacts, the following noise-reduction measure shall be implemented during construction of the Civic Project and Residential Project:

- The construction contractor shall ensure that all equipment driven by internal combustion engines shall be equipped with mufflers, which are in good condition and appropriate for the equipment.

- The construction contractor shall ensure that unnecessary idling of internal combustion engines (i.e., idling in excess of 5 minutes) is prohibited.
- The construction contractor shall utilize "quiet" models of air compressors and other stationary noise sources where technology exists.
- At all times during grading and construction, the construction contractor shall ensure that stationary noise-generating equipment shall be located as far as practicable from sensitive receptors and placed so that emitted noise is directed away from the nearest residential land uses.
- The construction contractor shall designate a noise disturbance coordinator who would be responsible for responding to any local complaints about construction noise. The disturbance coordinator would determine the cause of the noise complaints (starting too early, bad muffler, etc.) and establishment reasonable measures necessary to correct the problem. The construction contractor shall visibly post a telephone number for the disturbance coordinator at the construction site.
- The construction contractor shall ensure that construction activities are limited to the hours between 7:30 a.m. to 7:00 p.m. Monday through Friday, and 9:00 a.m. and 6:00 p.m. on Saturday. Construction activities shall not occur at any time on City-recognized holidays and Sundays.

Level of Significance After Mitigation

Less Than Significant with Mitigation (Civic Project and Residential Project)

Noise Land Use Compatibility Consistency

Impact NOI-2:	**The proposed plan would not cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.[8]**

Construction

Civic Project and Residential Project

Impacts related to noise land use compatibility consistency are limited to operational impacts. No respective construction impacts would occur.

Operation

A significant impact would occur if the proposed plan would result in a conflict with the City's adopted land use compatibility standards. According to Pleasant Hill 2003 General Plan policies, new development projects must be designed and constructed to meet acceptable noise level standards adopted by the City. The City's acceptable noise levels for various types of new land use development are shown in Exhibit 3.10-2. For example, the following is a summary of the "normally acceptable" noise levels for the land use types of the proposed plan:

[8] This impact discussion is tailored specific to noise land use compatibility. See Section 3.9, Land Use, for a discussion of land use compatibility with regard to other environmental effects.

- 60 dBA CNEL for proposed Residential—Low Density Single-Family, Duplex, Mobile Homes land use development;
- 70 dBA CNEL for the proposed Playgrounds, Neighborhood Parks land use development; and
- 70 dBA CNEL for the proposed Schools, Libraries, Churches, Hospitals, Nursing Homes land use development.

The FHWA highway traffic noise prediction model (FHWA RD-77-108) was used to evaluate existing and future plan-related traffic noise conditions along modeled roadway segments in the vicinity of the plan area. The projected future traffic noise levels on roadways adjacent to the plan area were analyzed to determine compliance with the City's noise and land use compatibility standards. Traffic modeling was performed using the data obtained from the Transportation Impact Analysis (TIA) conducted by Fehr & Peers (Appendix J). This TIA provides data for existing (year 2018) and cumulative conditions (as defined in the traffic study). The resultant noise levels were weighed and summed over a 24-hour period to determine the CNEL values. The traffic noise modeling input and output files—including the 60 dBA, 65 dBA, and 70 dBA CNEL noise contour distances—are included in Appendix I. Table 3.10-8 shows a summary of the traffic noise levels for existing (year 2018) and cumulative traffic conditions, with and without the proposed plan, as measured at 50 feet from the centerline of the outermost travel lane.

Table 3.10-8: Plan Traffic Noise Modeling Results Summary

Roadway Segment	CNEL (dBA) 50 feet from Centerline of Outermost Lane					
	Existing without Plan	Existing with Plan	Increase over Existing without Plan (dBA)	Cumulative No Plan	Cumulative with Plan	Increase over Cumulative without Plan (dBA)
Oak Park Boulevard—Monte Cresta Avenue to Monticello Avenue	61.8	61.9	0.1	63.0	63.0	0.0
Oak Park Boulevard—Monticello Avenue to Manor Avenue	63.7	63.7	0.0	64.6	64.0	-0.6
Monte Cresta Avenue—Santa Barbara Road to Oak Park Boulevard	53.0	53.0	0.0	53.7	53.7	0.0
Santa Barbara Road—Monte Cresta Avenue to Monticello Avenue	53.3	53.5	0.2	53.0	53.9	0.9
Monticello Avenue—Santa Barbara Road to Future Driveway	56.5	56.6	0.1	56.7	56.7	0.0
Monticello Avenue—Future Driveway to Oak Park Boulevard	56.9	57.4	0.5	57.1	57.5	0.4

Notes:
Modeling results do not take into account mitigating features such as topography, vegetative screening, fencing, building design, or structure screening. Rather it assumes a worst case of having a direct line of site on flat terrain.
Source: FCS 2018.

Civic Project—Proposed Park

The highest traffic noise levels adjacent to the proposed park would occur on Monticello Avenue, between Santa Barbara Road and the future planned Driveway intersection, under Cumulative Plus Plan conditions, ranging up to approximately 57 dBA CNEL as measured at 50 feet from the centerline of the nearest travel lane. Thus, these traffic noise levels are within the City's "normally acceptable" range of up to 70 dBA CNEL for neighborhood park land use developments. As such, traffic noise would result in a less than significant impact.

Civic Project—Proposed Library

The highest traffic noise levels adjacent to the proposed library would occur on Oak Park Boulevard, between Monticello Avenue and Manor Avenue, under Cumulative Plus Plan conditions, ranging up to approximately 64 dBA CNEL as measured at 50 feet from the centerline of the nearest travel lane. The façade of the proposed library would be located approximately 90 feet from the centerline of Oak Park Boulevard. At this distance, traffic noise levels from Oak Park Boulevard would range up to approximately 60 dBA CNEL. Thus, these traffic noise levels are within the City's "normally acceptable" range of up to 70 dBA CNEL for libraries. As such, traffic noise would result in a less than significant impact.

Residential Project

The highest traffic noise levels adjacent to the proposed residencies would occur on Oak Park Boulevard, between Monte Cresta Avenue and Monticello Avenue, under Cumulative Plus Plan conditions, ranging up to approximately 63 dBA CNEL as measured at 50 feet from the centerline of the nearest travel lane. The nearest proposed façade would be located approximately 54 feet from the centerline of the roadway. At this distance, traffic noise levels would range up to approximately 63 dBA CNEL. These traffic noise levels are within the City's "conditionally acceptable" range of up to 70 dBA CNEL for residential land use developments, which would be considered a potentially significant impact. Under the "conditionally acceptable" designation, the specified land use may be permitted only after noise insulation features have been included in the design. Conventional construction, but with closed windows and fresh air supply systems will normally suffice.

Based on the United States Environmental Protection Agency (EPA) Protective Noise Levels, a combination of walls, doors, and windows, provided in accordance with CBC requirements for the proposed residential development would result in a 25 dBA in exterior-to-interior noise reduction with windows closed and a 15 dBA or more with windows open. With windows open, the interior noise levels of the proposed units nearest to Oak Park Boulevard would not meet the City's interior noise standard of 45 dBA L_{dn} for indoor sleeping areas (63 dBA–15 dBA = 48 dBA). However, the inclusion of the proposed air conditioning system, which would allow windows to remain closed for prolonged periods, would be sufficient to reduce traffic noise levels to meet the interior noise level standard of 45 dBA L_{dn} (63 dBA–25 dBA = 38 dBA). Thus, traffic noise levels would not exceed noise levels that the City considers acceptable for new residential land uses. As such, traffic noise would result in a less than significant impact.

Level of Significance

Less Than Significant (Civic Project and Residential Project)

Groundborne Vibration/Noise Levels

Impact NOI-3: The proposed plan would not generate excessive groundborne vibration or groundborne noise levels.

Construction

This section analyzes construction groundborne vibration impacts. The City of Pleasant Hill has not adopted criteria for construction groundborne vibration impacts. Therefore, for purposes of this analysis, the FTA's vibration impact criteria are utilized. The FTA has established industry accepted standards for vibration impact criteria and impact assessment. These guidelines are published in the agency's Transit Noise and Vibration Impact Assessment document.[9] Therefore, for purposes of this analysis, a significant impact would occur if the implementation of the proposed plan would generate groundborne vibration or groundborne noise levels in excess of the FTA impact assessment criteria for construction (0.2 inch/second PPV for non-engineered timber and masonry buildings).

Groundborne noise is generated when vibrating building components radiate sound, or noise generated by groundborne vibration. In general, if groundborne vibration levels are do not exceed levels considered to be perceptible, then groundborne noise levels would not be perceptible in most interior environments. Therefore, this analysis focuses on determining exceedances of groundborne vibration levels.

Construction activity can result in varying degrees of ground vibration, depending on the equipment used on the site. Operation of construction equipment causes ground vibrations that spread through the ground and diminish in strength with distance. Buildings in the vicinity of a construction site respond to these vibrations with varying results ranging from no perceptible effects at the low levels, to slight damage at the highest levels. As shown in the Setting section above, Table 3.10-4 provides approximate vibration levels for various construction activities.

Civic Project—Proposed Park

Of the variety of equipment used during construction of the proposed park, a backhoe would produce the greatest groundborne vibration levels. Backhoes produce groundborne vibration levels ranging up to 0.051 inch/second PPV at 25 feet from the operating equipment. The closest off-site structure to the proposed construction area is a residential home located to the east, across the East Bay Municipal Utility District trail. This home would be located approximately 140 feet from the nearest construction footprint where heavy equipment would operate (including improvements in the Grayson Creek Corridor area). At this distance, the operation of a backhoe would result in 0.003 inch/second PPV at this nearest structure. These levels are well below the FTA's damage threshold criteria of 0.2 inch/second PPV for this type of structure: a building of engineer timber and masonry construction. Therefore, construction-related groundborne vibration impacts to off-site receptors would be less than significant.

Civic Project—Proposed Library

Of the variety of equipment used during construction of the proposed library, the small vibratory rollers that would be used in the site preparation phase of construction would produce the greatest

[9] Federal Transit Administration (FTA). 2006. Transit Noise and Vibration Impact Assessment. May.

groundborne vibration levels. The closest off-site structure to the p construction area is a residential home located across Oak Park Boulevard between Monticello Avenue and Manor Avenue. This building would be located approximately 80 feet from the nearest construction footprint where heavy equipment would operate (including improvements in the Grayson Creek Corridor area). At this distance, the operation of small vibratory rollers could result in groundborne vibration levels of up to 0.018 inch/second PPV at this nearest structure. These levels are well below the FTA's damage threshold criteria of 0.2 inch/second PPV for this type of structure: a building of engineer timber and masonry construction. Therefore, construction-related groundborne vibration impacts at to off-site receptors would be less than significant.

Civic Project—Monticello Avenue Improvements

The Civic Project would provide improvements along Monticello Avenue including the addition of sidewalks, curbs, and landscaped plantings. New water lines would be placed beneath Monticello Avenue to service the Civic Project. The new water lines would run along the centerline of the street right-of-way. A new joint utility trench would be established along Monticello Avenue between Oak Park Boulevard and Santa Barbara Road to provide electrical, gas, and telecommunication services for the proposed developments.

The closest off-site structure to the construction area is a residential home located directly south of the Oak Park Boulevard and Monticello Avenue intersection. This building would be located approximately 80 feet from the nearest construction footprint where heavy equipment would operate during these proposed improvements to Monticello Avenue. At this distance, the operation of small vibratory rollers could result in groundborne vibration levels of up to 0.018 inch/second PPV at this nearest structure. These levels are well below the FTA's damage threshold criteria of 0.2 inch/second PPV for this type of structure: a building of engineer timber and masonry construction. Therefore, construction-related groundborne vibration impacts at this property to off-site receptors would be less than significant.

Civic Project—Oak Park Boulevard Improvements

The Civic Project would provide improvements along Oak Park Boulevard including the addition of new sidewalks, curbs, and landscaped plantings. There are no proposed changes to the existing 10-inch main beneath Oak Park Boulevard. A new joint utility trench would be established along Oak Park Boulevard to provide electrical, gas, and telecommunication services for the Civic Project. The new conduit would cross Oak Park Boulevard to the east of Monticello Avenue, continue westward along the north side of Oak Park Boulevard, to the intersection of Monticello Avenue and Oak Park Boulevard.

The closest off-site structures to the construction area are the residential homes located south of Oak Park Boulevard between Monticello Avenue and Manor Avenue. The closest of these buildings would be located approximately 80 feet from the nearest construction footprint where heavy equipment would operate. At this distance, the operation of small vibratory rollers could result in groundborne vibration levels of up to 0.018 inch/second PPV at this nearest structure. These levels are well below the FTA's damage threshold criteria of 0.2 inch/second PPV for this type of structure: a building of engineer timber and masonry construction. Therefore, construction-related groundborne vibration impacts to off-site receptors would be less than significant.

Residential Project

Of the variety of equipment used during construction, the small vibratory rollers that would be used in the site preparation phase of construction would produce the greatest groundborne vibration levels. Small vibratory rollers produce groundborne vibration levels ranging up to 0.101 inch/second PPV at 25 feet from the operating equipment. The closest off-site structure to the proposed plan's proposed construction area is the existing Contra Costa County Office of Education building located along Monte Cresta Avenue between Santa Barbara Road and Oak Park Boulevard. The nearest façade of this building would be located approximately 30 feet from the nearest construction footprint where heavy equipment would operate. At this distance, the operation of small vibratory rollers could result in groundborne vibration levels of up to 0.08 inch/second PPV at this nearest structure. These levels are well below the FTA's damage threshold criteria of 0.2 inch/second PPV for this type of structure: a building of engineer timber and masonry construction. Therefore, construction-related groundborne vibration impacts at this property to off-site receptors would be less than significant.

Operational

Civic Project and Residential Project

A significant impact would occur if the proposed plan's on-going activities would produce groundborne vibrations that are perceptible without instruments by a reasonable person at the property lines of a site. Implementation of the proposed plan would not include any permanent sources of vibration that would expose persons in the vicinity of the plan area to groundborne vibration levels that could be perceptible without instruments at any existing sensitive land use in the vicinity of the plan area. Therefore, operational groundborne vibration impacts would be less than significant.

Level of Significance

Less Than Significant (Civic Project and Residential Project)

Excessive Noise Levels from Airport Activity

Impact NOI-4:	**The proposed plan would not expose people residing or working in the plan area to excessive noise levels for a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport.**

Construction

Civic Project and Residential Project

Noise impacts related to the proposed plan being located proximate to a private airstrip or public use airport are limited to operational impacts. No respective construction impacts would occur.

Operational

Civic Project and Residential Project

A significant impact would occur if a project would expose people residing or working in the project area to excessive noise levels for a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport.

The plan area is not located within the vicinity of a private airstrip. Additionally, there is not a private airstrip located within a 2-mile radius of the plan area. The nearest public airport to the plan area is the Buchanan Field Airport, located approximately 3.3 miles north of the plan area. Because of its distance from the airport's runways, the plan area is located well outside of the airport's 55-dBA CNEL noise contours. As such, operation of the Civic Project and Residential Project would not expose people residing or working at the plan area to excessive noise levels associated with public airport or public use airport noise. Therefore, no impact related to exposure of people residing or working within the plan area to excessive noise levels associated with airport activity would occur.

Level of Significance

No Impact (Civic Project and Residential Project)

3.10.5 - Cumulative Impacts

Construction Noise

Construction noise generated by the proposed plan, in combination with construction activities for other projects that may be constructed simultaneously could, without mitigation, substantially increase noise levels in the vicinity of the plan area. However, there are no known developments proposed in the vicinity of the plan area that could result in significant cumulative construction noise levels at noise-sensitive uses adjacent to the plan area boundaries. In addition, similar to the proposed plan, other projects would be subject to the City of Pleasant Hill Municipal Code Noise Ordinance, which regulates construction hours to avoid significant noise impacts. Accordingly, it is expected that cumulative construction noise impacts would be less than significant.

Operational Traffic Noise

As discussed in the operational section of Impact NOI-2, the highest traffic noise level increase with implementation of the proposed plan would occur along Santa Barbara Road between Monte Cresta Avenue and Monticello Avenue under Cumulative Plus Plan conditions. Along this roadway segment, the proposed plan would result in an increase of 0.9 dBA under Cumulative Plus Plan conditions. Existing traffic noise levels along Santa Barbara Road between Monte Cresta Avenue and the Monticello Avenue is documented to range up to 53.3 dBA CNEL as measured at 50 feet from the centerline of the outermost travel lane. These noise levels do not exceed the City's normally acceptable land use compatibility threshold.

The significance threshold for a cumulative traffic noise impact would be traffic noise levels that exceed the City's "conditionally acceptable" threshold for a receiving land use. The analysis shows that plan-related operational and traffic noise levels would not cause ambient noise levels in the vicinity of the plan area to exceed "conditionally acceptable" noise levels for any land use in the vicinity of the plan area from any plan-related noise source. Therefore, there is no significant cumulative impact to which the proposed plan is contributing or creating. As such, the proposed plan would not contribute to a significant cumulative impact to the ambient noise environment in the vicinity of the plan area, and no mitigation would be required.

Operational Stationary Noise

Implementation of the proposed plan would introduce new stationary noise sources to the ambient noise environment in the vicinity of the plan area, including new mechanical ventilation equipment, parking lot noise sources, and recreational noise sources. However, proposed stationary noise sources would not result in substantial permanent increases in ambient noise levels in excess of established standards. In addition, these noise levels would not exceed existing background ambient noise levels. Therefore, implementation of the proposed plan would not result in a cumulatively considerable contribution to existing ambient noise conditions in the vicinity of the proposed plan. This impact would be less than significant.

Noise Land Use Compatibility Consistency

Combined cumulative year traffic noise levels would not exceed noise levels that the City considers acceptable for the proposed land uses. In addition, inclusion of the proposed air conditioning system, which would allow windows to remain closed for prolonged periods, would be sufficient to reduce traffic noise levels to meet the interior noise level standard of 45 dBA L_{dn}. Therefore, implementation of the proposed plan would not result in a cumulatively considerable contribution to consistency with noise land use compatibility standards. This impact would be less than significant.

Construction Vibration

Construction vibration generated by the proposed plan, in combination with construction vibration from other development projects in the vicinity, could combine to produce excessive vibration levels at nearby sensitive receptors. However, because there are no known development projects proposed in the vicinity of the plan area, there would be no cumulative construction vibration, and this impact would be less than significant.

Operational Vibration

Implementation of the proposed plan would not include any permanent sources of vibration that would expose persons in the vicinity of the plan area to groundborne vibration levels that could be perceptible without instruments at any existing sensitive land use in the vicinity of the plan area. Therefore, implementation of the proposed plan would not result in a cumulatively considerable contribution to vibration conditions in the vicinity of the proposed plan. This impact would be less than significant.

Level of Cumulative Significance

Less Than Significant (Civic Project and Residential Project)

3.11 - Population and Housing

This section describes existing population and housing in the region, City, and Specific Plan area (plan area) as well as the relevant regulatory framework. This section also evaluates the possible impacts related to population and housing that could result from implementation of the Specific Plan (proposed plan). The analysis included in this section is based on information included in the California Department of Finance (CDF) population estimates; the Association of Bay Area Governments (ABAG) regional projections, regional forecast, and Regional Housing Need Plan; and the Pleasant Hill 2015 Housing Element. No public comments were received during the Environmental Impact Report (EIR) scoping period related to population and housing.

3.11.1 - Environmental Setting

Population

San Francisco Bay Area

The ABAG conducts long-term forecasts of population, households, and employment for the nine-county[1] San Francisco Bay Area (Bay Area) to project growth in the region. The Bay Area has experienced population growth over the past several decades, and that growth is expected to continue. The ABAG 2013 projection estimates that approximately 7,150,700 residents were living in the Bay Area in 2010. The ABAG projects that the Bay Area's population will grow by 9 percent each decade between 2010 and 2040, or approximately 716,120 new residents each decade.[2] Between 2010 and 2040, the ABAG projects that the region will grow 25 percent to a population of 9,522,300.[3]

City of Pleasant Hill

The CDF estimates that the total population of the City of Pleasant Hill was 35,068 as of January 1, 2018.[4] The CDF estimates that the City of had an average household size of 2.50 and 14,332 dwelling units as of January 1, 2018.[5]

The City is projected to have a population of 35,900 in 2030 with a consistent growth rate, similar to other sizable Bay Area cities, at an average annual growth rate of approximately 0.35 percent.[6] Table 3.11-1 summarizes the City's historic population growth between 1970 and 2018.

[1] The Bay Area is defined as the nine counties that make up the region: Sonoma, Marin, Napa, Solano, Contra Costa, Alameda, Santa Clara, San Mateo, and San Francisco.
[2] Association of Bay Area Governments (ABAG). 2013. Forecasts and Projections. Website: http://abag.ca.gov/planning/research/forecasts.html.
[3] Association of Bay Area Governments (ABAG). Regional Forecast for Plan Bay Area 2040, at page 2. Website: https://abag.ca.gov/planning/research/memos/Regional_Forecast_for_Plan_Bay_Area_2040_F_030116.pdf.
[4] California Department of Finance (CDF). 2018. Table 2: E-5 City/County Population and Housing Estimates, 1/1/2018. Website: http://www.dof.ca.gov/Forecasting/Demographics/Estimates/E-5/. Accessed January 2, 2019.
[5] *Ibid.*
[6] California Department of Finance (CDF). 2018. Report E-1: Population Estimates for Cities, Counties, and the State January 1, 2017 and 2018. Website: http://www.dof.ca.gov/Forecasting/Demographics/Estimates/E-1/. Accessed January 2, 2019.

Table 3.11-1: City of Pleasant Hill Historic Population Growth

Year	Population	Change from Previous (Percent)	Average Annual Growth Rate (Percent)
1970	24,610	—	—
1980	25,547	3.81	0.38
1990	31,550	23.5	2.35
2000	32,837	4.08	0.41
2010	33,152	0.96	0.10
2011	33,306	0.46	0.46
2012	33,579	0.82	0.82
2013	33,894	0.94	0.94
2014	34,178	0.84	0.84
2015	34,503	0.95	0.95
2016	34,745	0.70	0.70
2017	34,944	0.57	0.57
2018	35,068	0.35	0.35

Source: CDF 2018-Table E-4. Historical Population Estimates for Cities, Counties, and the State. Website: http://www.dof.ca.gov/Forecasting/Demographics/Estimates/; CDF, 2018-Table E-5. Population and Housing Estimates for Cities, Counties, and the State. Website: http://www.dof.ca.gov/Forecasting/Demographics/Estimates/.

Table 3.11-2 summarizes the City's projected population growth between 2020 and 2040.

Table 3.11-2: City of Pleasant Hill Projected Population Growth

Year	Population	Change from Previous (Percent)	Average Annual Growth Rate (Percent)
2030	35,900	4.36	0.44
2040	37,700	5.01	0.50

Source: City of Pleasant Hill 2015 Housing Element, Table H2. Population Estimates and Projections, 2010–2040.

Plan Area

The plan area contains no existing residential units; therefore, the plan area has no permanent population. However, the existing library employs 24 persons, which represents the site's daytime population.

Housing

San Francisco Bay Area

Growth in the Bay Area housing supply slowed between 2010 and 2014 compared with previous decades, likely in part because of the effects of the Great Recession. Specifically, the Bay Area added an average of 9,600 units per year between 2010 and 2014, compared with an average of 23,200 units per year between 2000 and 2010. During the 1990s, the Bay Area averaged an additional 18,700 units per year.[7]

The ABAG periodically develops regional projections for population, households, and economic activity. These projections span four decades and include forecasts of 25 years into the future. The ABAG calculates projections based on a combination of economic relationships, policy development, and other factors. Based on ABAG projections for households from 2010 to 2040, the compound annual growth rate is 4.04 percent. This rate is calculated from the average growth rate of each 5-year period[8] and forecasts the needed development of 822,600 new housing units between 2010 and 2040.[9] The growth in housing construction would provide approximately 3,607,000 housing units by 2040, implying an average rate of increase between 17,000 and 37,000 units per year. According to the ABAG, the majority of forecasted new housing units would be to fill the needs of projected household growth within the region.

City of Pleasant Hill

The CDF also provides historic housing growth estimates for the City of Pleasant Hill. The City's housing stock increased by 4.96 percent in the period between 1990 and 2015, growing from 13,652 to 14,329.[10,11] According to the most recent housing estimate for 2018, there are 14,332 dwelling units in the City. The City's housing growth between 2010 to 2018 is provided in Table 3.11-3.

Table 3.11-3: City of Pleasant Hill Historic Housing Unit Growth

Year	Dwelling Units	Change from Previous (Percent)
2010	14,321	—
2011	14,322	0.007
2012	14,321	(0.007)
2013	14,324	0.021
2014	14,327	0.021
2015	14,329	0.014

[7] Association of Bay Area Governments (ABAG). Executive Summary—State of the Region 2015: Economy, Population and Housing. (2015). Website: http://reports.abag.ca.gov/sotr/2015/executive-summary.php.

[8] Association of Bay Area Governments (ABAG). Bay Area Regional Projections. 2013. Website: https://abag.ca.gov/planning/research/forecasts.html.

[9] Association of Bay Area Governments (ABAG). Regional Forecast for Plan Bay Area 2040, at page 8. Website: https://abag.ca.gov/planning/research/memos/Regional_Forecast_for_Plan_Bay_Area_2040_F_030116.pdf.

[10] California Department of Finance (CDF), 2018. Table E-5 Population and Housing Estimates for [Cities] 2011–2018 with 2010 Census Benchmark. Website: http://www.dof.ca.gov/Forecasting/Demographics/Estimates/E-5/. Accessed February 21, 2019.

[11] California Department of Finance (CDF), E-8 City/County/State Population and Housing Estimates, 4/1/1990 to 4/1/2000. Website: http://www.dof.ca.gov/Forecasting/Demographics/Estimates/E-8/. Accessed February 21, 2019.

Table 3.11-3 (cont.): City of Pleasant Hill Historic Housing Unit Growth

Year	Dwelling Units	Change from Previous (Percent)
2016	14,329	—
2017	14,332	0.21
2018	14,332	—

Source:
California Department of Finance (CDF). 2018-Table E-5 Population and Housing Estimates for [Cities] 2011–2018 with 2010 Census Benchmark. Website: http://www.dof.ca.gov/Forecasting/Demographics/Estimates/E-5/.

Plan Area

The plan area contains no existing dwelling units.

Affordable Housing

San Francisco Bay Area

The California Department of Housing and Community Development (HCD) and ABAG determined that the Bay Area must plan for approximately 187,990 new housing units over an 8-year period from 2014 to 2022, or an average of 2,248 units per year.[12] Of this total amount, 46,680 units must be made available for persons with a Very Low income and 28,940 units for Low income. Roughly, 40 percent of region-wide housing would need to be made affordable in order to meet regional affordable housing objectives. According to available data published by the ABAG, the Bay Area has made progress in meeting housing goals.[13] The data represents permits issued for very low, low, moderate, and above moderate housing projects as well as specific totals for each of the nine Bay Area counties (29 percent, 26 percent, 28 percent, 99 percent, and 57 percent, respectively).

City of Pleasant Hill

In July 2013, the ABAG projected regional housing needs in its Regional Housing Needs Plan for the San Francisco Bay Area: 2014–2022 (Regional Housing Needs Plan). According to ABAG forecasts, the City of Pleasant Hill's projected housing need from 2014 to 2022 is 448 residential units, consisting of:

- 59 units within the extremely low (<30 percent of area median income);
- 59 units within the very-low-income level (31-50 percent of area median income);
- 69 units within the low-income level (50–80 percent of area median income);
- 84 units within the moderate-income level (80–120 percent of area median income); and
- 177 units within the above-moderate-income level (more than 120 percent of area median income).[14]

[12] City of Pleasant Hill. 2015. Pleasant Hill 2015 Housing Element, page 32. Website: https://www.ci.pleasant-hill.ca.us/DocumentCenter/View/5328/2009-ADOPTED-and-CERTIFIED-Housing-Element-August?bidId=. Accessed January 2, 2019.
[13] City of Pleasant Hill. 2015. Pleasant Hill 2015 Housing Element. Website: www.ci.pleasant-hill.ca.us/DocumentCenter/View/5328/2009-ADOPTED-and-CERTIFIED-Housing-Element-August?bidId. Accessed January 2, 2019.
[14] City of Pleasant Hill. 2015. Pleasant Hill 2015 Housing Element, page 33. Website: https://www.ci.pleasant-hill.ca.us/DocumentCenter/View/5328/2009-ADOPTED-and-CERTIFIED-Housing-Element-August?bidId=. Accessed January 2, 2019.

Thus, the jurisdictional allocation for the City translates into an average annual need for approximately 56 net new residential units. To meet housing goals, the Pleasant Hill 2015 Housing Element identifies six sites throughout the City with a combined capacity of over 490 housing units.[15]

Plan Area

The plan area contains no existing housing units.

Employment

San Francisco Bay Area

The Bay Area region has experienced a strong recovery since the 2007–2009 Great Recession, with job growth proceeding at a pace greater than that experienced by the State of California or the United States as a whole. By mid-2013, the Bay Area had regained all of the jobs lost during the Great Recession. However, if 2000 is used as the baseline year, the average rate of growth is much less—close to zero—since the peak of the dot-com boom era.[16]

More recent data indicates that almost half of the projected job growth from 2010 had already occurred as of 2015. The 2010 to 2015 strength reflects a combination of recovery from the depths of the 2007 to 2009 recession and a strong surge in economic activity related to the technology and social media sectors. In this projection, employment growth slightly outpaces the nation, with the Bay Area share of U.S. employment growing from 2.5 percent in 2010 (3,422,800) to 2.69 percent in 2015 (4,025,600) and to 2.76 percent in 2040 (4,698,400).[17]

City of Pleasant Hill

Total employment in the City of Pleasant Hill was 16,513 in 2014.[18] Approximately 52.9 percent of the City's employed population is in the category of Services (includes education, health care, tourism, and legal services) followed by Finance, Insurance, and Real Estate (11.6 percent). Unemployment remains significantly lower in the City of Pleasant Hill compared to its peak of 9.5 percent in January 2010. The City's unemployment rate is below the California State average (4.1 percent), at 2.4 percent in May 2018.[19]

Plan Area

The existing library currently employs 24 persons. There are no other land uses with employees within the plan area.

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[15] City of Pleasant Hill. 2015. Pleasant Hill 2015 Housing Element, Table D1. Potential Housing Sites. Website: https://www.ci.pleasant-hill.ca.us/DocumentCenter/View/5328/2009-ADOPTED-and-CERTIFIED-Housing-Element-August?bidId=. Accessed January 2, 2019.

[16] Association of Bay Area Governments (ABAG). Executive Summary—State of the Region 2015: Economy, Population and Housing. (2015). Website: http://reports.abag.ca.gov/sotr/2015/executive-summary.php.

[17] Association of Bay Area Governments (ABAG). Regional Forecast for Plan Bay Area 2040, Fiscal Year 2016, Table 1. Website: https://abag.ca.gov/planning/research/memos/Regional_Forecast_for_Plan_Bay_Area_2040_F_030116.pdf.

[18] City of Pleasant Hill. 2015. City of Pleasant Hill: Community Profile, page 5. Website: https://www.ci.pleasant-hill.ca.us/DocumentCenter/View/13868/Community_Profile_Pleasant-Hill-CA--Feb--2015?bidId=. Accessed January 2, 2019.

[19] U.S. Bureau of Labor Statistics. 2018. Website: https://www.google.com/search?q=unemployment+statistics+pleasant+hill&rlz=1C1GCEU_enUS821US821&oq=une&aqs=chrome.0.69i59j0l2j69i57j69i60j0.880j0j7&sourceid=chrome&ie=UTF-8. Accessed: January 2, 2019.

3.11.2 - Regulatory Framework

Federal

No federal plans, policies, regulations, or laws related to population and housing is applicable to the proposed plan.

State

California Housing Element Law

The State Housing Element Law (Government Code Chapter 1143, Article 10.6, §§ 65580 and 65589) requires each city and county to adopt a general plan for future growth. This plan must include a housing element that identifies housing needs for all economic segments and provides opportunities for housing development to meet that need. The amount of housing that must be accounted for in a local housing element is determined through a process called the Regional Housing Needs Allocation (RHNA). In the RHNA process, the State allocates each region a number representing the amount of housing needed, based on existing need and expected population growth.

At the State level, the HCD estimates the relative share of the State's anticipated population growth that would occur in each county in the State, based on CDF population projections and historic growth trends. Where there is a regional council of governments, as in the San Francisco Bay Area (in this case, the ABAG), the HCD provides the regional housing need to the council. The council then assigns a share of the regional housing need to each of its cities and counties. The process of assigning shares provides cities and counties the opportunity to comment on the proposed allocations. The HCD oversees the process to ensure that the council of governments distributes its share of the State's projected housing need.

Each city and county must update its general plan housing element on a regular basis pursuant to the requirements of Government Code Section 65580, *et seq*. Among other things, the housing element must incorporate policies and identify potential sites that would accommodate a city's share of the regional housing need. Before adopting an update to its housing element, a city or county must submit the draft to HCD for review. The HCD will advise the local jurisdiction whether its housing element complies with the provisions of California Housing Element Law. The regional councils of governments are required to assign regional housing shares to the cities and counties within their region on a similar schedule. At the beginning of each cycle, the HCD provides population projections to the regional councils of governments, who then allocate shares to their cities and counties. The shares of the regional need are allocated before the end of the cycle so that the cities and counties can amend their housing elements by the deadline.

Regional

Plan Bay Area and ABAG Regional Housing Needs Allocation

The Plan Bay Area, published by the Metropolitan Transportation Commission and the ABAG, is a long-range integrated transportation and land use/housing strategy through 2040 for the Bay Area. The Plan Bay Area functions as the sustainable communities' strategy mandated by Senate Bill 375. In July 2013, ABAG projected regional housing needs in its Regional Housing Needs Plan for the San Francisco Bay Area: 2014–2022.

Acting in coordination with the HCD, the ABAG determines the Bay Area's regional housing need based on regional trends, projected job growth, and existing needs. The City of Pleasant Hill's fair share of the regional housing need allocation for 2014-2022 was calculated as 448 units, or about 56 units per year.[20] The RHNA determination includes production targets addressing the housing needs of a range of household income categories. A total of about 187 units, or approximately 42 percent of the RHNA target, must be affordable to households making up to 80 percent of the area's median income.[21] The United States Census Bureau calculates the annual area median income for the City of Pleasant Hill. For the 2013 to 2017 range, the City's median income for a single-person household was almost $101,530.

Local

City of Pleasant Hill

Pleasant Hill 2015 Housing Element

The Pleasant Hill 2015 Housing Element includes policies and programs to address City housing needs for a range of incomes. Programs address the City's housing needs for housing of all types especially that of affordable housing and innovative approaches to single-family units. The Pleasant Hill 2015 Housing Element establishes the following goals and policies related to housing and population:

Housing Goals, Policies and Programs

- **Goal 1:** Maintain a housing supply sufficient to meet the housing needs of all Pleasant Hill residents.
- **Policy 1A:** Monitor residential and job-producing development in the city in order to maintain an adequate housing supply for city residents.
- **Policy 1B:** Maintain a sufficient supply of residential land with appropriate zoning to meet locally generated housing needs.
- **Program 1.1:** Report annually to the City Council and Planning Commission regarding the amount and type of housing activity. As required by State law, City staff provides a yearly report on the progress made toward achieving the City's housing goals.
- **Program 1.6:** Continue to work with the County and neighboring cities to increase the opportunity to jointly develop affordable housing.
- **Goal 2:** Promote diversity in tenure, type, size, location and price to permit a choice of housing for persons of all economic levels.
- **Policy 2A:** Allow a variety of housing types to be built on residential sites.
- **Policy 2B:** Remove constraints to production and availability of housing when consistent with other General Plan policies.
- **Program 2.1:** Continue to use the City-wide Design Guidelines to facilitate small-lot development, small single-family units and single-family attached units through consideration of decreased setbacks, zero lot lines, lot clustering through the Planned Development process, and/or shared parking provisions in appropriate locations.

[20] City of Pleasant Hill. 2015. Pleasant Hill 2015 Housing Element, page 33. Website: https://www.ci.pleasant-hill.ca.us/DocumentCenter/View/5328/2009-ADOPTED-and-CERTIFIED-Housing-Element-August?bidId=. Accessed January 2, 2019.

[21] Regional Housing Need Plan, San Francisco Bay Area 2014–2022. Appendix C: Final Regional Housing Need Allocation (2014-2022). Website: https://abag.ca.gov/files/ABAG_Final_RHNA_Publication.pdf. Accessed January 2, 2019.

Growth Management Element

The Growth Management Element sets forth the policies, goals, and implementation programs that are designed to mitigate and manage the impacts of future development and growth within the City of Pleasant Hill.

- **Goal 1:** Support land use patterns that are orderly and make more efficient use of the transportation system.
- **Policy 1B:** Support infill and redevelopment in existing urban areas and around key transit facilities.

Pleasant Hill Municipal Code

Chapter 18.20.060 Inclusionary Housing

The City promotes the achievement of policy goals identified in the Pleasant Hill 2015 Housing Element.

The City requires that each housing development of five or more dwelling units include one of the following:

1. At least 10 percent of the dwelling units as inclusionary units for occupancy by low-income households; or
2. At least 5 percent of the dwelling units as inclusionary units for occupancy by very low-income households; or
3. At least 25 percent of the dwelling units for qualifying senior resident as defined in California Civil Code Sections 51.2 and 51.3; or
4. At least 20 percent of the dwelling units as inclusionary accessory dwelling units for occupancy by low-income households.

Chapter 18.20.060 provides further regulations for the inclusionary housing including design standards and construction timing, duration of restrictions, resale and rental restriction agreements, security, off-site alternatives, in-lieu fees, and redevelopment projects. Section G of 18.20.060 notes that in-lieu[22] fees may only be approved in extraordinary circumstances.

3.11.3 - Impacts and Mitigation Measures

Significance Criteria

According to the 2019 California Environmental Quality Act (CEQA) Guidelines Appendix G Environmental Checklist, to determine whether impacts to population and housing are significant environmental effects, the following questions are analyzed and evaluated. Would the proposed plan:

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)?

[22] An in-lieu fee is a fee a developer pays to help finance the construction of affordable housing off-site.

b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

Approach to Analysis

Impacts related to population, housing, and employment were determined by analyzing existing and projected population, housing, and employment estimates provided by the CDF, ABAG, and the City of Pleasant Hill 2015 Housing Element. The proposed plan's impacts were evaluated by determining their consistency with these projections, estimates, and the Pleasant Hill 2015 Housing Element.

Specific Thresholds of Significance

For purposes of this analysis, the following thresholds are used to evaluate the significance of population and housing impacts resulting from implementation of the proposed plan.

- Inducement of permanent or daytime population or employment growth in the Pleasant Hill 2015 Housing Element planning area that would exceed City of Pleasant Hill or ABAG population projections for the City of Pleasant Hill.
- Displacement of existing housing or permanent population.

Impact Evaluation

Population Growth

Impact POP-1:	**Implementation of the proposed plan would not induce substantial unplanned 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).**

Construction

Civic Project

The project's construction would draw construction workers from the Northern California labor pool and would not result in long-term population growth or permanent relocation of construction workers. Therefore, substantial population growth would not be indirectly induced through construction of the Civic Project or Residential Project, and the construction impact related to inducement of population growth would be less than significant.

Residential Project

The project's construction would draw construction workers from the northern California labor pool and would not result in long-term population growth or permanent relocation of construction workers. Therefore, substantial population growth would not be indirectly induced through construction of the Civic Project or Residential Project, and the construction impact related to inducement of population growth would be less than significant.

Operation

Civic Project

The park would provide recreational space for residents in the surrounding area and would not have residents or, nor would the Pleasant Hill Recreation and Park District need to add any new staff. The proposed library would continue to provide space for the City's existing library personnel, and the positions at the existing library would be relocated to the new library; there would be no increase in the number of employees related to the library portion of the project; the new library is expected to employ 20 persons.[23] In addition, the Civic Project would not include extension of new roads or infrastructure in an undeveloped area, and thus would not induce population growth indirectly. Therefore, substantial population growth would not be directly or indirectly induced with implementation of the Civic Project.

Residential Project

Direct Population Growth

Direct population growth is a result of developing residential units. The Residential Project would involve construction of 34 single-family dwelling units with seven accessory dwelling units (ADUs). The CDF estimates persons per household ratio for the City of Pleasant Hill is 2.50.[24] Though ADUs typically house less people than a single-family dwelling unit, and 2.50 persons per household is used as a conservative estimate. Therefore, at buildout, the Residential Project would result in an increase of approximately 103 people to the City's population. The Pleasant Hill 2015 Housing Element estimates a total of 37,700 residents by 2040. The Residential Project's estimated increase in persons would represent an increase of less than 1 percent relative to the 2018 estimate. Thus, implementation of the Residential Project would not induce substantial direct population growth within the City.

In addition, the Residential Project specifically addresses the Pleasant Hill 2015 Housing Element Goal 2 (promoting diversity in types of housing) and Program 2.1 (facilitating small single-family units through the Planned Development process). The City's RHNA allocation is 448 units for the 2014-2022 cycle. The Pleasant Hill 2015 Housing Element identifies sites that could accommodate these additional 448 units and includes the property at 1700 Oak Park Boulevard as a potential housing site.[25] Under the Residential Project, the residential units would instead be built on the adjacent property at 1750 Oak Park, but the Residential Project would not hinder overall development of housing as anticipated in the Pleasant Hill 2015 Housing Element. The housing units (and associated residents) on the Residential Project site were anticipated in the Pleasant Hill 2015 Housing Element. Thus, implementation of the Residential Project would not induce substantial direct population growth within the City.

[23] Stan Wong. Project Manager, Swinerton Builders. Personal communication: email. February 6, 2019.

[24] California Department of Finance (CDF). 2018. Table 2: E-5 City/County Population and Housing Estimates, 1/1/2018. Website: http://www.dof.ca.gov/Forecasting/Demographics/Estimates/E-5/. Accessed January 3, 2019.

[25] City of Pleasant Hill. 2015. Pleasant Hill 2015 General Plan Housing Element-Table D1. Potential Housing Sites (page 92). Website: https://www.ci.pleasant-hill.ca.us/DocumentCenter/View/5328/2009-ADOPTED-and-CERTIFIED-Housing-Element-August?bidId=. Accessed January 3, 2019.

Indirect Population Growth

Indirect population growth occurs when a project creates substantial employment opportunities, provides new infrastructure that can lead to additional growth, and/or removes barriers to growth. For example, a project could create thousands of jobs and attract a substantial amount people to the area. The Residential Project site is within the City limits, within the Urban Growth Boundary, and is currently well served by transportation and utility infrastructure. No employees are anticipated for the Residential Project. In addition, the Residential Project would not include extension of new roads or infrastructure in an undeveloped area, and thus would not induce population growth indirectly. Thus, implementation of the Residential Project would not induce substantial indirect population growth within the City.

Level of Significance

Less Than Significant (Civic Project and Residential Project)

Population/Housing Displacement

Impact POP-2:	**Implementation of the proposed plan would not displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere.**

Construction

Civic Project and Residential Project

The plan area currently contains an existing library and administrative offices, segments of Monticello Avenue and Oak Park Boulevard, and the Grayson Creek Corridor. The existing buildings at the 1750 Oak Park property (library and administrative offices) would be demolished; however, implementation of the proposed plan would not demolish any existing housing and, and such, implementation of the Civic Project and Residential Project would not displace any existing housing units or residents, and no replacement housing would need to be constructed elsewhere. Therefore, there would be no impact related to constructing replacement housing due to the displacement of people or housing.

Operation

Civic Project and Residential Project

Impacts related to displacement of people or housing necessitating replacement housing are limited to construction impacts. No respective operational impacts would occur.

Level of Significance

No Impact (Civic Project and Residential Project)

3.11.4 - Cumulative Impacts

Cumulative population and housing effects must be considered in relationship to land use, plans, and policy considerations for development facilitated by the Pleasant Hill 2015 Housing Element. The relevant cumulative geographic context is the area of the City that includes projects identified in Chapter 3, Environmental Impact Analysis, Table 3-1, Cumulative Projects.

Population Growth

Cumulative projects listed in Table 3-1 in conjunction with the proposed plan would add residents to the City. The CDF estimates that the total population of the City was 35,068 as of January 1, 2018.[26] The development of the Pleasant Hill 2015 Housing Element sites on Beatrice Road and Cleaveland Road are the only residential projects listed in Table 3-1 and would add approximately 202 housing units resulting in approximately 505 residents assuming 2.5 persons per household ratio. This increase in population would be in addition to the approximately 103 residents associated with the proposed plan for a total cumulative population increase of 608 residents. The Pleasant Hill 2015 Housing Element estimates the City at buildout to have a population of 37,700 people by 2040. This represents an increase of 2,632 residents from 2018. This proposed plan would account for only 3.9 percent of the expected population growth by 2040. The other residential projects listed in Table 3-1 would account for approximately 19.2 percent of the expected population growth or 1.3 percent of the total 2040 population. This additional population is anticipated in the Pleasant Hill 2015 Housing Element and is already expected and planned for as part of the City's expected growth. As such, while other cumulative projects would result in direct population growth, implementation of the proposed plan, in conjunction with other cumulative projects, would result in a less than significant cumulative impact associated with direct population growth as this growth has already been planned for by the City of Pleasant Hill.

Cumulative projects listed in Table 3-1 in conjunction with the implementation of the proposed plan are expected to generate employment opportunities, such as the Cambria Hotel and the two daycare centers that are likewise expected to draw employees. Total employment in the City of Pleasant Hill was 16,513 in 2014.[27] The cumulative projects' estimated increase in jobs would total 180, which represents a nominal 1 percent increase in the number of jobs.[28] Furthermore, employees for the listed cumulative projects would be expected to be drawn from the local labor force. The proposed plan is not expected to employ any new employees. The proposed library would continue to provide space for the City's existing library personnel, and the positions at the existing library would be relocated to the new library; there would be no increase in the number of employees related to the library portion of the project. As such, there would not be substantial indirect population growth associated with implementation of the identified cumulative projects.

Therefore, cumulative impacts related to population growth, both direct and indirect, would be considered less than significant.

Population/Housing Displacement

Cumulative projects listed in Table 3-1 in conjunction with implementation of the proposed plan would add residential units to the City. None of the projects listed in Table 3-1 would remove existing housing. Furthermore, the development of the Pleasant Hill 2015 Housing Element opportunity site on Beatrice Road and Cleaveland Road would add approximately 202 housing units to the City's housing stock. In addition, as described above, implementation of the proposed plan

[26] California Department of Finance (CDF). 2018. Table 2: E-5 City/County Population and Housing Estimates, 1/1/2018. Website: http://www.dof.ca.gov/Forecasting/Demographics/Estimates/E-5/. Accessed January 2, 2019.

[27] City of Pleasant Hill. 2015. City of Pleasant Hill: Community Profile, page 5. Website: https://www.ci.pleasant-hill.ca.us/DocumentCenter/View/13868/Community_Profile_Pleasant-Hill-CA--Feb--2015?bidId=. Accessed January 2, 2019.

[28] Institute of Transportation Engineers (ITE) 2017. Trip Generation Manual 10th Edition. Website: https://www.ite.org/tripgeneration/index.asp

would not require the removal of any homes and would not displace any people. Therefore, implementation of the proposed plan, in conjunction with other projects, would not displace housing or people that would necessitate the construction of additional housing elsewhere and would result in no cumulative impact associated with displacement of housing or people.

Level of Cumulative Significance

Less Than Significant (Civic Project and Residential Project)

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3.12 - Public Services

3.12.1 - Introduction

This section describes the existing conditions related to public services (fire, police, schools, and library) in the City and Specific Plan area (plan area), as well as the relevant regulatory framework. This section also evaluates the possible impacts related to public services that could result from implementation of the Specific Plan (proposed plan). Information in this section is based on information obtained from the Pleasant Hill 2003 General Plan and relevant provisions of the Pleasant Hill Municipal Code, Contra Costa County Fire Protection District, Contra Costa County Library, Pleasant Hill Police Department, and Mount Diablo Unified School District, and Pleasant Hill Recreation and Park District. Note that parks are addressed within Section 3.13, Recreation. The following comments were received during the Environmental Impact Report (EIR) scoping period related to public services:

- Concerns for solid waste generated from the recreation and park facilities?
- Will there be a temporary library and where will it be located?
- Will adequate emergency access be provided for fire and police services?

3.12.2 - Environmental Setting

Fire Protection and Emergency Medical Services

Northern California

California Department of Forestry and Fire Protection (CAL FIRE) is responsible for fire protection and stewardship of over 31 million acres of California's privately-owned wildlands. In addition, CAL FIRE provides varying levels of emergency services in 36 of the California's 58 counties via contracts with local governments. Because of the Department's size and major incident management experience, it is often asked to assist or take the lead in disasters. CAL FIRE is divided into 21 units throughout California that are designed to address fire suppression.[1]

Contra Costa County

The Contra Costa County Fire Protection District (CCCFPD) provides fire protection and emergency medical services to unincorporated areas, including firefighting and rescue, fire prevention and training, and emergency medical care. The CCCFPD is the first responder providing basic life support and advanced life support. Transportation is provided by Emergency Medical Response, a private ambulance service contracted by the CCCFPD. The CCCFPD covers approximately 304 square miles located within Contra Costa County and in the Oakland Bay Area of Northern California. CCCFPD's service area covers 302 square miles representing 38 percent of the County's 802 square miles. CCCFPD's current estimated service population is 600,000.

In 2018, a series of wildfires occurred in Northern California resulting in the Camp Fire, which is deadliest wildfire to occur in State history. Contra Costa County contains areas of undeveloped

[1] California Department of Forestry and Fire Protection (CAL FIRE). 2018. About CAL FIRE. Website: http://calfire.ca.gov/about/about. Accessed September 25, 2018.

hillsides, which pose as a potential fire hazard. According to the Contra Costa County General Plan, wildfire hazards are a considerable problem in undeveloped areas and in areas of extensive area of un-irrigated vegetation. Vegetation and grain areas of the County are extremely flammable during the late summer and fall.[2] The CCCFPD is comprised of 22 engine companies, 5 truck companies, and a Shift Training Captain/Safety Officer. All companies are staffed with a captain, engineer, and a firefighter.[3]

City of Pleasant Hill

The CCCFPD provides fire protection services to the residents of the City of Pleasant Hill. As discussed previously, the CCCFPD is the first responder providing basic life support and advanced life support while transportation is provided by Emergency Medical Response, a private ambulance service contracted by the CCCFPD.

The CCCFPD's headquarters is located at 2010 Geary Road, Pleasant Hill. There are 26 operational stations in the CCCFPD service area. Station No. 5 is closest to the plan area, approximately 0.61-mile to the north, and currently accesses the plan area using Monticello Avenue. Additional fire stations located within the City of Pleasant Hill are summarized in Table 3.12-1.

Table 3.12-1: Fire Stations Proximate to Project Site

Station	Address	Distance to Project Site
No. 1	1330 Civic Drive, Walnut Creek, CA 94596	2.12 miles
No. 2	2010 Geary Road, Pleasant Hill, CA 94523	0.73 mile
No. 5	205 Boyd Road, Pleasant Hill, CA 94523	0.61 mile
No. 10	2955 Treat Boulevard, Concord, CA 94518	2.13 miles

The CCCFPD staffs 24 operational stations and two more stations staffed with paid-on-call Reserve Firefighters. Minimum daily staffing is 77 personnel. Three stations are located within the City of Pleasant Hill. The CCCFPD employs 406 full-time paid personnel. Each of the three fire stations in Pleasant Hill is supplied with one engine and is staffed by nine firefighters working three at a time on three shifts, with one paramedic on duty at all times (Pleasant Hill 2003 General Plan). Station No. 5 would be the first due company, Station No. 2 would be the second due engine company, and Station No. 1 would be the first due truck company. All companies are staffed with a Captain, Engineer, and a Firefighter. All companies are staffed with at least one Paramedic and the other members of the crew are Emergency Medical Technician's (EMTs). The CCCFPD is comprised of 22 Engine Companies, 5 Truck Companies, and a Shift Training Captain/Safety Officer daily.[4]

The average response time is approximately 7 minutes and 18 seconds. Average response time for Station No. 2 is 7 minutes and 24 seconds. Average response time for Station No. 5 is 6 minutes and 57 seconds. The response times include turnout time, which includes the time from station-

[2] Contra Costa County General Plan. 2005.
[3] Contra Costa County Fire Protection District (CCCFPD). 2019. Email Correspondence with Tracie Dutter, Fire Prevention Captain. January 18, 2019.
[4] Contra Costa County Fire Protection District (CCCFPD). 2019. Email Correspondence with Todd Schiess, Fire Inspector I. January 4, 2019.

acknowledged notification of the emergency until the time the response apparatus leaves the station.[5] Fire Station No. 5 is located approximately 0.61-mile from the project site. Using an average travel time of 25 miles per hour, a fire engine responding from Fire Station No. 5 would take 1 minute and 48 seconds to reach the plan area.

The CCCFPD maintains mutual aid agreements with Kensington Fire Protection District, Moraga-Orinda Fire Protection District, Rodeo-Hercules Fire Protection District, and San Ramon Valley Fire Protection District.

Plan Area

The plan area does not contain fire protection or emergency medical facilities. The plan area is located within the CCCFPD service area. As summarized in Table 3.12-1, the closest CCCFPD facility to the plan area is located 0.61-mile to the north. Emergency access is currently provided from Monticello Avenue.

Police Protection

Contra Costa County

The Contra Costa County Office of the Sheriff provides police protection services for the unincorporated areas of Contra Costa County. In addition, the Contra Costa County Office of the Sheriff provides police protection for the cities of Danville, Lafayette, and Orinda. The Office of the Sheriff has over 1,100 sworn officers and professional employees, and receives more than 600,000 calls for service a year with nearly 60,000 of them being 911 calls.[6]

City of Pleasant Hill

The Pleasant Hill Police Department (PHPD) provides police protection for the City of Pleasant Hill. The PHPD is located at 330 Civic Drive, Pleasant Hill, located approximately 2.5 miles away. The PHPD employs 45 sworn officers and 17 civilian employees. On average there are between five and seven officers assigned to patrol the City of Pleasant Hill on any given day or time period. The front office staff, Police Dispatchers, and Community Service Officers, average between two and three employees at any given time. Currently, there are 813 citizens per employed officer. The PHPD target ratio would be a fully staffed department having 45 sworn officers bringing their target ratio to approximately 777 citizens per officer.[7]

The PHPD average response time is approximately 5 minutes for emergency response calls. The response time standard for emergency calls is 5 minutes and a 20-minute response time for 95 percent of non-emergency calls.[8] Depending on the current location of the closest officer at the time of the emergency call, emergency response time within the City can vary from 1 to 5 minutes.[9]

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[5] *Ibid*.

[6] Contra Costa County Office of the Sheriff. 2018. Website: http://www.cocosheriff.org/about/overview.htm. Accessed December 20, 2018.

[7] Pleasant Hill Police Department (PHPD). 2018. Pleasant Hill Police Department Email Correspondence with Scott Vermillion, Lieutenant. December 21, 2018.

[8] City of Pleasant Hill. 2003. Draft EIR for City of Pleasant Hill 2003 General Plan, page 81.

[9] Pleasant Hill Police Department (PHPD). 2018. Pleasant Hill Police Department Email Correspondence with Scott Vermillion, Lieutenant. December 21, 2018.

The PHPD has a mutual aid agreement with the Contra Costa County Office of the Sheriff.[10]

Plan Area

No police facilities are located on within the plan area. The plan area is located within the PHPD service area, with the closest police station located approximately 1.82 miles to the north. Emergency access is from Monticello Avenue.

Schools

Contra Costa County

The plan area is served by the Mount Diablo Unified School District (MDUSD). The MDUSD serves students in middle school from nine schools: Diablo View Middle School, El Dorado Middle School, Foothill Middle School, Oak Grove Middle School, Pine Hollow Middle School, Pleasant Hill Middle School, Riverview Middle School, Sequoia Middle School, and Valley View Middle School. The MDUSD serves students in high school from five schools: College Park High School, Concord High School, Mount Diablo High School, Northgate High School, and Ygnacio High School. The MDUSD serves students in elementary school from 31 schools:

- Ayers Elementary School
- Bancroft Elementary School
- Bel Air Elementary School
- Cambridge Elementary School
- Delta View Elementary School
- Eagle Peak Elementary School
- El Monte Elementary School
- Fair Oaks Elementary School
- Gregory Gardens Elementary School
- Hidden Valley Elementary School
- Highlands Elementary School
- Holbrook Elementary School
- Meadow Homes Elementary School
- Monte Gardens Elementary School
- Mount Diablo Elementary School
- Mountain View Elementary School
- Pleasant Hill Elementary School
- Rio Vista Elementary School
- Sequoia Elementary School
- Shore Acres Elementary School
- Silverwood Elementary School
- Strandwood Elementary School
- Sun Terrance Elementary School
- Sunrise Elementary School
- Valhalla Elementary School
- Valle Verde Elementary School
- Walnut Acres Elementary School
- Westwood Elementary School
- Woodside Elementary School
- Wren Avenue Elementary School
- Ygnacio Valley Elementary School

According to the Department of Education, the MDUSD served 31,317 students in the 2017–2018 academic year. Table 3.12-2 provides enrollment information for the past 4 years for the MDUSD.

Table 3.12-2: MDUSD Enrollment

School Year	MDUSD Enrollment Total
2014–2015	31,923

[10] *Ibid.*

Table 3.12-2 (cont.): MDUSD Enrollment

School Year	MDUSD Enrollment Total
2015–2016	32,005
2016–2017	31,814
2017–2018	31,317
Source: California Department of Education Data Reporting Office. K-12 Public School Enrollment, Mount Diablo Unified School District (MDUSD). Website: https://data1.cde.ca.gov/dataquest/DQ/EnrTimeRpt.aspx?Level=District&cYear=2014-15&cname=Mt.%20Diablo%20Unified&cCode=0761754. Accessed February 21, 2019.	

Plan Area

No school facilities or residences are located within the plan area. The plan area is located within the MDUSD service area. The closest schools are Pleasant Hill Elementary School (0.82 mile west), Pleasant Hill Middle School (0.13 mile north), and Ygnacio High School (2.2 miles east).

Libraries

Table 3.12-3 lists the local libraries that serve the City, under the Contra Costa County Library service area.

Table 3.12-3: Libraries within the Contra Costa County Library Service Area Near the Project Site

Library Branch and Location	Distance from Project Site	Hours of Operation	Services and Events
Pleasant Hill Library 1750 Oak Park Boulevard Pleasant Hill, CA 94523	0.0 mile (within project boundaries)	Monday through Saturday Closed Sunday	The Pleasant Hill Library contains a collection of over 106,000 books, audiobooks, videos, DVDs, and CDs. There are 38 computers and WiFi for public use. Learning programs for all ages take place at the library.
Walnut Creek Library 1644 North Broadway Walnut Creek, CA 94596	2.3 miles to the south	Monday through Saturday Closed Sunday	The Walnut Creek Library contains a children's wing and garden, a teen area, a business and career center, a technology center, a conference room, and four group study rooms.
Ygnacio Valley Library 2661 Oak Grove Road Walnut Creek, CA 94598	3.1 miles to the southeast	Monday through Saturday Closed Sunday	The Ygnacio Valley Library was remodeled in 2004. It is a popular neighborhood meeting location, known especially for its cookbooks, mysteries, and investment corner section.
Source: Contra Costa Library. 2019. Walnut Creek Library. Website: http://ccclib.org/locations/walnutcreek.html. Accessed February 21, 2019.			

Plan Area

The plan area is located within the Contra Costa Library service area. A library facility is currently located on at 1750 Oak Park Boulevard. The library includes a 37,364-square-foot Pleasant Hill Library, 42,083-square-foot vacant municipal administrative offices, and a parking lot containing 182 spaces. The Pleasant Hill Library is a two-story circular building. The northern portion of the library building connects to neighboring administrative offices. The library houses a collection of over 106,000 books, audiobooks, and various forms of digital media. Among its collection, the library contains a vault of local historic materials and historic maps, and an extensive archive of newspapers and periodicals.

3.12.3 - Regulatory Framework

Federal

National Fire Protection Association

The National Fire Protection Association (NFPA) publishes 300 codes and standards intended to minimize the possibility and effects of fire and other risks. Among these codes and standards are specific policies designed for fire protection. These standards range from fire protection and life safety systems, standards for portable fire extinguishers to recreational vehicle standards.

State

California Health and Safety Code

California Health and Safety Code Sections 13100–13135 establish the following policies related to fire protection:

- **Section 13100.1:** The functions of the office of the State Fire Marshall, including CAL FIRE, shall be to foster, promote, and develop strategies to protect life and property against fire and panic.
- **Section 13104.6:** The Fire Marshall has the authority to require fire hazards to be removed in accordance with the law relating to removal or public nuisances on tax-deeded property.

California Building Standards Code

The 2010 California Building Standards Code (CBC), contained in Part 2 of Title 24 of the California Code of Regulations, identifies building design standards, including those for fire safety. The CBC is based on the 1997 Uniform Building Code but has been modified for California conditions. It is generally adopted on a jurisdiction-by-jurisdiction basis, subject to further modification based on local conditions. Commercial and residential buildings and related improvements (e.g., streets) are plan-checked by local city and county building officials for compliance with the CBC. Typical fire safety requirements of the CBC include the installation of sprinklers in multi-family buildings; the establishment of fire resistance standards for fire doors, building materials, and particular types of construction; and clearance of debris and vegetation within a prescribed distance from occupied structures in wildfire hazard areas.

California Fire Code

The California Fire Code, contained in Part 9 of California Code of Regulations, Title 24, incorporates by adoption the International Fire Code of the International Code Council, with California

amendments. The California Fire Code regulates building standards set forth in the CBC, fire department access, fire protection systems and devices, fire and explosion hazards safety, hazardous materials storage and use, and standards for building inspection. The California Fire Code is updated and published every 3 years by the California Building Standards Commission.

California Senate Bill 50

California Senate Bill 50 (SB 50) (funded by Proposition 1A, approved in 1998) limits the power of cities and counties to require mitigation of school facilities impacts as a condition of approving new development, and provides instead for a standardized developer fee. SB 50 generally provides for a 50/50 State and local school facilities funding match. SB 50 also provides for three levels of statutory impact fees. The application level depends on whether State funding is available, whether the school district is eligible for State funding, and whether the school district meets certain additional criteria involving bonding capacity, year-round school, and the percentage of moveable classrooms in use.

California Government Code, Section 65995(b) and Education Code, Section 17620

SB 50 amended Section 65995 of the California Government Code, which contains limitations on Section 17620 of the Education Code, the statute that authorizes school districts to assess development fees within school district boundaries. Section 65995(b)(3) of the Government Code requires the maximum square footage assessment for development to be increased every 2 years, according to inflation adjustments. On January 22, 2014, the State approved increasing the allowable amount of statutory school facilities fees (Level I School Fees) from $3.20 to $3.36 per square foot of assessable space for residential development of 500 square feet or more, and from $0.51 to $0.54 per square foot of chargeable covered and enclosed space for commercial/industrial development. School districts may levy higher fees if they apply to the State and meet certain conditions.

Local

Contra Costa County Fire Prevention District, Fire Prevention Bureau Engineering and Plan Review

The Engineering and Plan Review Division of the CCCFPD Fire Prevention Bureau is responsible for plan review, new construction inspections, and fire and life safety systems acceptance testing to ensure compliance with the California Fire and Building Codes, and applicable NFPA Standards.

Pleasant Hill 2003 General Plan

Public Facilities and Services Element

The City of Pleasant Hill establishes the following development goals, policies, and programs associated with public services and utilities that are relevant to the proposed plan:

Community Development

- **Goal 10**: Provide high-quality police, fire and emergency medical response and services.
- **Policy 10B**: Establish secondary emergency access routes for all areas of the city currently lacking dual access.
- **Policy 10B**: Meet City-adopted emergency response time and efficiency objectives.
- **Program 10.1**: Improve City street[s] where necessary to accommodate emergency vehicles.

- **Program 10.2**: Work with non-City agencies (including through mutual aid agreements where appropriate), and provide required funding for City services, to maintain necessary emergency personnel staffing levels, and to build additional emergency service facilities and infrastructure as necessary.
- **Goal 12**: Promote excellence in public education.
- **Policy 12A**: Acknowledge the critical contribution of schools to the socioeconomic health of the city.
- **Policy 12B**: Help ensure that high-quality teaching and facilities are provided to all students.
- **Program 12.1**: Work with public and private schools in teacher recruitment, facilities planning, housing and other key efforts.
- **Program 12.2**: Continue to address issues of concern to the Pleasant Hill Schools with the Mount Diablo Unified School District through the City's Education/Schools Advisory Commission.
- **Goal 13**: Facilitate lifelong learning and promote coordinated residential and school development.
- **Policy 13A**: Improve communication and cooperative interaction among the City, School District, pre-schools, Diablo Valley College, JFK University, and the Recreation and Park District.
- **Policy 13B**: Establish strong physical and cultural connections between the City, Diablo Valley College, JFK University, and local schools that result in creative, proactive opportunities for cooperation.
- **Policy 13C**: Promote the design and use of elementary schools as focal points for neighborhood social, cultural, vocational and recreational activities, and performing arts venues.
- **Program 13.1**: Work with the School District to identify appropriate locations for new or upgraded schools, facilities, additions and improvements.
- **Program 13.2**: Establish a Diablo Valley College and JFK University liaison to address issues of mutual concern and potential community-wide benefit.
- **Program 13.3**: Request that the School District continue to collect school impact fees for new residential development.
- **Goal 14**: Work to ensure that a state-of-the-art County Library facility remains in Pleasant Hill.
- **Policy 14A**: Acknowledge that access to an excellent library with standard hours of operation is a key component of quality of life in the city.
- **Program 14.1**: Work with the County Library Commission to assure the long-term residency of the County Library in the city, and to site and plan a new state-of-the-art facility in Pleasant Hill.
- **Goal 17**: Offer high-quality park, recreation, and trail facilities and programs for residents and visitors.
- **Policy 17A**: Advocate a wide range of recreation programs for all segments of the resident and visitor population.
- **Program 17.2**: Work with the Recreation and Park District to establish and achieve a standard of 3 acres of developed parkland per 1,000 population.
- **Goal 18**: Provide new sports fields and recreation facilities.
- **Policy 18A**: Designate appropriate sites for new playing fields, tennis courts, and other facilities.
- **Program 18.1**: Work with the Recreation and Park District to facilitate development and expansion of recreation and park facilities.

- **Program 18.2**: Consider recreation-related development at the former Oak Park Elementary School site or other sites south of Gregory Lane in a manner that accommodates flood control and, where feasible, provides for additional on-site flood control facilities.

3.12.4 - Impacts and Mitigation Measures

According to 2019 California Environmental Quality Act (CEQA) Guidelines Appendix G, to determine whether impacts related to public services are significant environmental effects, the following question is analyzed and evaluated. Would the proposed plan:

> 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:
> a) Fire protection?
> b) Police protection?
> c) Schools?
> d) Other public facilities?

Approach to Analysis

Impacts on fire and police services were determined by evaluating the proposed plan's effect on existing fire and police station response times. Projected population provided by the Pleasant Hill 2003 General Plan was also reviewed. In addition, fire and police (emergency) access to the plan area was evaluated. Impacts on schools were determined by evaluating the proposed plan's effect on existing school enrollment. Projected population and school enrollment data provided by the California Department of Education and the MDUSD were also reviewed. Furthermore, impacts to police, fire, schools, and library facilities were also based on information from the Pleasant Hill 2003 General Plan and information received in response to request letters sent to each of these service providers for their input related to possible impacts.

Specific Thresholds of Significance

For purposes of this analysis, the following thresholds are used to evaluate the significance of public service impacts resulting from implementation of the proposed plan:

- Result in additional population or activities requiring fire protection services in a manner that necessitates the need for new or altered fire facilities, the construction of which would result in significant construction-related traffic, air quality, greenhouse gas (GHG) emissions, or noise impacts. Determination of significance of construction-related traffic, air quality, GHG emissions, hazards, or noise impacts is based on the respective specific thresholds of significance listed in Section 3.14, Transportation; Section 3.2, Air Quality; Section 3.6, Greenhouse Gas Emissions and Energy; Section 3.7, Hazards, Hazardous Materials, and Wildfire; and Section 3.10, Noise.

- Result in additional population or activities requiring police protection services in a manner that necessitates need for new or altered police facilities, the construction of which would result in significant construction-related traffic, air quality, GHG emissions, or noise impacts. Determination of significance of construction-related traffic, air quality, GHG emissions, hazards, or noise impacts is based on the respective specific thresholds of significance listed in Section 3.14 Transportation; Section 3.2, Air Quality; Section 3.6, Greenhouse Gas Emissions and Energy; Section 3.7, Hazards, Hazardous Materials, and Wildfire; and Section 3.10, Noise.
- Result in additional population or activities requiring school services in a manner that necessitates need for new or altered school facilities, the construction of which would result in significant construction-related traffic, air quality, GHG emissions, or noise impacts. Determination of significance of construction-related traffic, air quality, GHG emissions, hazards, or noise impacts is based on the respective specific thresholds of significance listed in Section 3.14, Transportation; Section 3.2, Air Quality; Section 3.6, Greenhouse Gas Emissions and Energy; Section 3.7, Hazards, Hazardous Materials, and Wildfire; and Section 3.10, Noise.
- Result in additional population or activities requiring library services in a manner that necessitates need for new or altered library facilities, the construction of which would result in significant construction-related traffic, air quality, GHG emissions, or noise impacts. Determination of significance of construction-related traffic, air quality, GHG emissions, hazards, or noise impacts is based on the respective specific thresholds of significance listed in Section 3.14, Transportation; Section 3.2, Air Quality; Section 3.6, Greenhouse Emissions and Energy; Section 3.7, Hazards, Hazardous Materials, and Wildfire; and Section 3.10, Noise.

Impact Evaluation

Need for New or Altered Fire Protection Facilities

Impact PUB-1:	**The proposed plan would not 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 fire protection.**

Construction

Civic Project and Residential Project

The plan area would be served by the CCCFPD. The closest fire station to the plan area is Contra Costa Fire Station No. 2 located at 2012 Geary Road in Pleasant Hill, approximately 0.75 mile to the southwest. According to the Draft EIR for the Pleasant Hill 2003 General Plan, stations typically respond to calls for service within 4 minutes, below the CCCFPD standard of 5 minutes.[11] Using an average travel speed of 20 miles per hour, a fire engine coming from Station No. 2 would arrive in approximately 2.3 minutes. Similar large projects in recent history have only generated a few calls for service during construction, usually less than one or two per month of construction activities, generally medical in nature or related to some kind of workplace traumatic injury. As such, the Civic Project and Residential Project would not create the need for new or altered fire protection facilities.

[11] City of Pleasant Hill. January 2003. Draft EIR for City of Pleasant Hill General Plan 2003, page 88.

Therefore, construction impacts related to provision of new or altered fire protection facilities would be less than significant.

Operation

Civic Project

Use of the proposed park would require minimal fire and emergency services, given that the proposed athletic fields would not provide employment or residential uses. The proposed library would be expected to slightly increase fire protection and emergency services compared to existing conditions. The Civic Project would comply with the CBC, which is adopted by the Contra Costa County Municipal Code. In compliance with the California Fire Code, Part 9 of the CBC, the Civic Project would follow standards for fire safety such as fire flow requirements for buildings, fire hydrant location and distribution criteria, automated sprinkler systems, and fire-resistant building materials. Furthermore, this site would be located 0.75 mile from the nearest fire station, and fire response time would be approximately 2.3 minutes, well below the 5-minute District standard. There would be a less than significant impact associated with the Civic Project related to fire protection services.

Residential Project

The Residential Project would result in the development of 34 single-family homes with seven accessory dwelling units. As such, the Residential Project would be expected to increase demand for fire protection services compared to existing conditions. The Residential Project would comply with the CBC, which is adopted by the Contra Costa County Municipal Code. In compliance with the California Fire Code, Part 9 of the CBC, the Residential Project would follow standards for fire safety such as fire flow requirements for buildings, fire hydrant location and distribution criteria, automated sprinkler systems, and fire-resistant building materials. Furthermore, this site would be located 0.75 mile from the nearest fire station, and fire response time would be approximately 2.3 minutes, well below the 5-minute District standard. There would be a less than significant impact associated with the Residential Project related to fire protection services.

Level of Significance

Less Than Significant (Civic Project and Residential Project)

Need for New or Altered Police Protection Facilities

Impact PUB-2:	**The proposed plan would not 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 police protection.**

Construction

Civic Project and Residential Project

The Civic Project and Residential Project would be served by the PHPD, located at 330 Civic Drive, approximately 2.5 miles away. Depending on the location of the closest officer at the time of an

emergency call, the response time could vary from 1 to 5 minutes, which is within the response time standard for emergency calls.

During construction, the Civic Project and Residential Project would include security measures such as fencing to prohibit access except for construction personnel. As such, the Civic Project and Residential Project would not create the need for new or altered police protection facilities. Therefore, construction impacts related to need for provision of new or physically altered police protection facilities would be less than significant.

Operation

Civic Project

The Civic Project would include development of athletic fields. This type of land use would require minimal police protection services, given that the proposed athletic fields would not provide employment or residential use. In addition, the Civic Project would be located 2.5 miles from the PHPD and, depending on the location of the closest officer at the time of an emergency call, the response time would vary from 1 to 5 minutes, which is within the response time standard for emergency calls. Prior to project approval, the City would require verification from the PHPD that emergency response can be provided within 5 minutes and that a 20-minute response is maintained for 95 percent of non-emergency calls.[12]

Furthermore, a new electrical system would be included to provide lighting for evening-time events and security. The new poles would be installed along the perimeter of the athletic field. As part of the proposed park uses, the athletic fields lighting system would operate on an automatic timer. The system would be active only when fields are scheduled for use. The light schedule would be dependent on daylight hours and would be programmed for 30 minutes prior to sunset until 10:00 p.m. The bocce courts would be lit with two lampposts that are 24 feet tall with light emitting diode (LED) lighting. Parking and pathways would be lit with poles not to exceed 24 feet and that would match the fixtures currently located at Pleasant Oaks Park.

The proposed library would provide adequate emergency access for police services along Monticello Avenue, and would include LED lighting as part of the design that would illuminate the parking lot, pedestrian paths, outdoor areas, and building facades. In addition, this property would be located 2.5 miles from the PHPD and, depending on the location of the closest officer at the time of an emergency call, the response time would vary from 1 to 5 minutes, which is within the response time standard for emergency calls. Prior to project approval, the City requires verification from the PHPD that emergency response can be provided within 5 minutes and that a 20-minute response is maintained for 95 percent of non-emergency calls.[13] As such, operational impacts related to need for new or altered police protection facilities impacts would be less than significant.

Residential Project

The Residential Project would result in the development of 34 single-family homes with seven accessory dwelling units. As such, the Residential Project would be expected to increase demand for

[12] City of Pleasant Hill. 2003. Draft EIR for City of Pleasant Hill 2003 General Plan, page 87.
[13] City of Pleasant Hill. 2003. Draft EIR for City of Pleasant Hill 2003 General Plan, page 87.

police protection services compared to existing conditions. According to the PHPD, property crimes have been the most significant problem within the community. The PHPD suggests implementing Crime Prevention Through Environmental Design (CPTED) models as part of the Residential Project. Examples of CPTED are proper street lighting and designing buildings, yards, and open space with minimal hiding spaces. In line with PHPD's recommendation, the Residential Project would include street lighting, external lighting, and fencing would be provided at all homes. In addition, the Residential Project would be located 2.5 miles from the PHPD and, depending on the location of the closest officer at the time of an emergency call, the response time would vary from 1 to 5 minutes, which is within the response time standard for emergency calls. Prior to approval of the Residential Project, the City would require verification from the PHPD that emergency response can be provided within 5 minutes and that a 20-minute response is maintained for 95 percent of non-emergency calls.[14] Given the Residential Project's proximity to the PHPD and the implementation of CPTED, there would be a less than significant impact with respect to police protection services.

Level of Significance

Less Than Significant (Civic Project and Residential Project)

Need for New or Altered School Facilities

Impact PUB-3:	**The proposed plan would not 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 or other performance objectives for schools.**

Construction

Civic Project and Residential Project

Since neither the Civic Project nor the Residential Project would include school facilities, impacts related to provision of new or expanded school facilities are limited to operational impacts. No respective construction impacts would occur.

Operation

Civic Project

The park would provide recreational space for residents in the surrounding area and would not have residents, nor would the Pleasant Hill Recreation and Park District need to add any new staff. The proposed library would continue to provide space for the City's existing library personnel; the library estimates there would be a decrease in the number of employees.[15] As discussed in Section 3.11, Population and Housing, the Civic Project would not be expected to result in any significant indirect population growth in the City of Pleasant Hill area from outside areas. Because the Civic Project would not cause direct or indirect population growth, no school enrollment growth would occur. Accordingly, no impacts would occur.

[14] *Ibid*.
[15] Melinda Cervantes. County Librarian. Personal communication: email. July 23, 2019.

Residential Project

The Residential Project would develop 34 single-family dwelling units with seven accessory dwelling units (ADUs). The California Department of Finance persons per household ratio for the City of Pleasant Hill is 2.50.[16] Though ADUs typically house less people than a single-family dwelling unit, 2.50 persons per household is used as a conservative estimate. Therefore, at buildout, the Residential Project would result in an increase of approximately 103 people.

Generation rates for the MDUSD were not available, so generation rates for the nearby Walnut Creek School District and the Acalanes Union High School District were used.[17] Using generation rates of 0.2 elementary school students per unit, 0.2 middle school students per unit, and 0.17 to 0.25 high school students per unit, the Residential Project would generate approximately 21 elementary school students, 21 middle school students, and 18 to 26 high school students for a maximum of 68 students. Capacity at the schools within the MDUSD school system were not available at the time of writing the Draft EIR. However, given that the current enrollment at several schools within the MDUSD have decreased since the 2016-2017 and 2017-2018 school years, MDUSD would be able to accommodate the additional students.[18]

Furthermore, the Residential Project sponsors would be required to pay development impact fees to the MDUSD. Pursuant to Government Code Section 65995, payment of adopted development fees is considered "full and complete mitigation" for impacts to school facilities, and local governments are prohibited from assessing additional fees or exactions for school impacts. Therefore, the Residential Project would not be required to construct or alter school facilities. Thus, the operational impact related to need for new or altered school facilities would be less than significant.

Level of Significance

Less Than Significant (Civic Project and Residential Project)

Need for New or Altered Library Facilities

Impact PUB-4:	**The proposed plan could 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 or other performance objectives for other public facilities.**

Construction

Civic Project

The Civic Project includes the construction of a new library to be located at 1700 Oak Park Boulevard. The property for the new library is expected to be conveyed to the City by the County and MDUSD at no cost. In line with the project objectives listed in Chapter 2, Project Descriptions, the Civic Project would create a state-of-the-art community library with interior and exterior

[16] California Department of Finance (CDF). 2018. Table 2: E-5 City/County Population and Housing Estimates, 1/1/2018. Website: http://www.dof.ca.gov/Forecasting/Demographics/Estimates/E-5/. Accessed January 3, 2019.
[17] The Planning Center | DC&E. 2012. The Terraces of Lafayette DEIR, Section 4.12-Public Services pages 4.12-25 to 4.12-26.
[18] Ed Data Education Data Partnership. 2019. Mount Diablo Unified Website. Website: http://www.ed-data.org/district/Contra-Costa/Mt.-Diablo-Unified. Accessed March 4, 2019.

community gathering spaces that serve the citizens of the City of Pleasant Hill and the vicinity well into the future. The library would support multi-generational learning and a variety of learning styles as well as overall literacy within the community.

Potential impacts associated with construction of the new library include temporary conditions associated with noise, traffic detours, and dust control, which are addressed though mitigation provided in other sections of this EIR, as described below. Implementation of the mitigation summarized below would reduce potential impacts to less than significant.

Mitigation Measure (MM) NOI-1 in Section 3.10, Noise, requires the use of best management noise reduction techniques and practices; while MM NOI-1 in Section 3.10, Noise, restricts construction activities to the hours between 7:30 a.m. and 7:00 p.m. on weekdays, 9:00 a.m. and 6:00 p.m. on Saturdays and Sundays (grading is not allowed on Sundays), ensuring that construction noise levels would not result in a substantial temporary increase in ambient noise levels.

As described in Section 3.2, Air Quality, and Section 3.6, Greenhouse Gas Emissions, MM AIR-2 would require implementation of Bay Area Air Quality Management District (BAAQMD) best management practices during construction, MM AIR-3 would require the use of construction equipment that would meet Tier IV off-road emissions standards, and MM GHG-1 would require the applicant to implement and document annual GHG emissions reduction measures.

Section 3.14, Transportation, determined that construction of the new library would result in less than significant impacts to the circulation systems, roadway design features, and emergency access with implementation of MM TRANS-1a (preparation and implementation of a construction traffic management plan).

Residential Project

The Residential Project includes the demolition of the existing library located at 1750 Oak Park Boulevard. Because the structure contains asbestos-containing materials and lead based paint, MM HAZ-2a and MM HAZ-2b would require abatement of asbestos containing materials and lead-based paint in accordance with state regulations; thereby reducing potential impacts to a less than significant level.

The County would relocate some of the library materials and services to a temporary library located at the Pleasant Hill Senior Center for approximately 18-24 months. The temporary library is expected to be open Monday to Saturday.[19]

The temporary library space at the Senior Center would not have a significant impact on existing users of the Senior Center because no programs or activities would be displaced. The Senior Center currently contains buildings and rooms that are available during the hours of operation for the library and the Senior Center would be able to accommodate normal library use in conjunction with existing Senior Center operations.[20]

[19] Melinda Cervantes. County Librarian, Contra Costa County. Personal communication in person March 12, 2019.
[20] Michelle Lacy. Pleasant Hill Recreation and Park District: General Manager. Personal communication: email. January 14, 2019.

Operation

Civic Project

The Civic Project would operate a replacement library on the Civic Project site. The proposed library would provide the same programs and features offered at the existing library; no intensification of operational uses is proposed. The new public library would include book collection areas, indoor and outdoor gathering spaces, an idea incubator space, technology areas, a bookstore, and other space to support building operations and maintenance. Exterior program space would include spaces for play areas and picnics. The proposed library would provide for multi-generational learning for a variety of learning styles and support literacy in the community. Since the Civic Project would provide library uses, there would be no operational impact related to need for a new or altered library or other public facilities.

Residential Project

The Pleasant Hill 2003 General Plan does not include a standard or goal for the provision of library services; however, for informational purposes, the Contra Costa County Library service area currently provides 305 gross square feet of library space per 1,000 residents.[21] The Residential Project's approximately 103 residents would represent an increase of less than one percent relative to the existing Contra Costa Library System service population. As such, the provision of library space per 1,000 residents would not be affected by implementation of the Residential Project.

Level of Significance

Potentially Significant (Civic Project and Residential Project)

Mitigation Measures

Residential Project: Implement MM HAZ-2a and MM HAZ-2b.

Civic Project: Implement MM AIR-2, MM AIR-3, MM GHG-1, MM NOI-1, and MM TRANS-1a.

Level of Significance After Mitigation

Less Than Significant with Mitigation (Civic Project and Residential Project)

3.12.5 - Cumulative Impacts

The geographical scope of the cumulative public services analysis is the boundaries of the CCCFPD, PHPD, MDUSD, and Pleasant Hill Library service area. Because of differences in the nature of the public service topical areas, they are discussed separately.

Fire Protection Facilities

The CCCFPD service area consists of the jurisdictional limits of the City of Pleasant Hill and Contra Costa County.

As listed in Chapter 3, Environmental Impact Analysis, Table 3-1, Cumulative Projects, cumulative development in the City of Pleasant Hill would result in predominantly residential and commercial

[21] Contra Costa County Library. 2006. New Strategic Plan. Website: http://ccclib.org/aboutus/StrategicPlan%20MASTER.pdf. Accessed February 21, 2019

development. These types of development would increase the permanent resident and daytime population. The increase in population would result in an increased demand for fire protection facilities. However, the need for fire protection services is gradual as development occurs.

To help offset the increased demand, the cumulative projects in Table 3-1 would be required to pay all applicable review and development impact fees to the CCCFPD. All developments would be in compliance with the California Fire Code, Part 9 of the CBC, and the proposed plan would follow standards for fire safety such as fire flow requirements for buildings, fire hydrant location and distribution criteria, automated sprinkler systems, and fire-resistant building materials. For these reasons, the cumulative projects would not result in the need to construct new or expand existing fire protection or emergency medical services facilities.

Given the above information, the implementation of the proposed plan, in conjunction with other existing, planned, and probable future projects, would result in a less than significant cumulative impact related to fire protection facilities.

Police Protection Facilities

The PHPD's service area is within the limits of the City of Pleasant Hill.

As listed in Table 3-1, cumulative development in the City of Pleasant Hill would result in predominantly residential and commercial development. These types of development would increase the permanent resident and daytime population. The increase in population and development would result in an increased demand for police protection facilities.

Cumulative projects within the service area of the PHPD would be reviewed for impacts on police protection services and would be required to address any potential impacts with mitigation. Cumulative projects would need to provide adequate emergency access for police services with proper signage and lighting. Because demand for law enforcement services is highly dependent on a number of factors that vary substantially by project (clientele, hours of operation, crime prevention measures, etc.), it is unlikely that there would be substantial overlap in demand that would result such that new facilities are necessary. Therefore, the implementation of the proposed plan, in conjunction with other projects, would result in a less than significant cumulatively impact related to police protection facilities.

School Facilities

The MDUSD service area is located central and northern Contra Costa County and covers the cities of Pleasant Hill, Concord, and Walnut Creek.[22]

As listed in Table 3-1, cumulative development in the City of Pleasant Hill would result in predominantly residential and commercial development. Residential development would increase the permanent population, increasing demand for school facilities. Cumulative projects listed in Table 3-1 in conjunction with the proposed plan would add residents to the City. The development of the

[22] Mount Diablo Unified School District (MDUSD). School Finder. Website: https://www.mdusd.org/schoolfinder. Accessed February 21, 2019.

Pleasant Hill 2003 General Plan Housing Element Opportunity sites on Beatrice Road and Cleveland Road are the only residential projects listed in Table 3-1 and would add approximately 202 housing units resulting in approximately 505 residents assuming 2.5 persons per household ratio. This increase in population would be in addition to the approximately 103 residents (totaling 608 people) associated with the implementation of the Residential Project and would result in an increase in school aged residents.

Cumulative projects would be required to pay development impact fees impact fees towards schools. Pursuant to Government Code Section 65995, payment of adopted development fees is considered "full and complete mitigation" for impacts to school facilities, and local governments are prohibited from assessing additional fees or exactions for school impacts. Given this and the anticipated incremental contribution to the MDUSD student population, the implementation of the proposed plan, in conjunction with other projects, would result in a less than significant cumulative impact related to school facilities.

Library Facilities

The geographic scope for the cumulative analysis of other public facilities analysis is the service area of the Contra County Library system, which includes the existing Pleasant Hill library.

Cumulative projects in Table 3-1, mainly the residential projects, may also result in the increase in library use, but would have nominal impacts on library services given the low cumulative residential persons projection. The new library would improve and enhance the delivery of library services to the community. Cumulative projects listed in Table 3-1 would add approximately 202 housing units resulting in approximately 505 residents assuming 2.5 persons per household ratio. This increase in population would be in addition to the approximately 103 residents associated with the Residential Project, totaling 608 people. As such, the implementation of the proposed plan, in conjunction with other projects, would result in a less than significant cumulative impact related to library facilities.

Level of Cumulative Significance

Less Than Significant (Civic Project and Residential Project)

3.13 - Recreation

3.13.1 - Introduction

This section describes existing parks and recreational facilities in the region and Specific Plan area (plan area) as well as the relevant regulatory framework. This section also evaluates the possible impacts related to parks and recreational facilities that could result from the implementation of the Specific Plan (proposed plan). Information in this section is based on information obtained from the City of Pleasant Hill 2003 General Plan. The following comments were received during the Environmental Impact Report (EIR) scoping period related to recreation:

- The park should include both active and passive recreational components (west side of park along Monticello Avenue is appropriate for a ball field, east side near the creek should be open space and allow for trails.
- The Creekside trail should extend from the library to the northern property line to connect the library, park, and schools.
- How will the Creekside trail and potential bridge connect the school and library to students?
- Creekside trail should include connection to garden and native plantings.

3.13.2 - Environmental Setting

Existing Parks and Recreational Facilities

The California Department of Parks and Recreation offers State parklands and trails throughout California. The California Department of Parks and Recreation manages and preserves 280 State park units, over 340 miles of coastline, 970 miles of lake and river frontage, 15,000 campsites, and 4,500 miles of trails.[1]

State Parks

Mount Diablo State Park

The only State Park within 10 miles of the plan area is Mount Diablo State Park, located approximately 6 miles southeast of the plan area in Contra Costa County. The approximately 20,000-acre park contains open land for camping, hiking, picnicking, horseback riding, mountain biking, and other recreational opportunities.[2] Park gates are open year-round from 8:00 a.m. to sunset.[3]

Plan Area

There are no existing State parks, recreational facilities, or designated open spaces within the plan area.

[1] California Department of Parks and Recreation. Accessed February 22, 2019. Website: https://www.parks.ca.gov/?page_id=91.
[2] California Department of Parks and Recreation. 2000. Mount Diablo State Park Brochure. Website: https://www.parks.ca.gov/pages/517/files/mtDiabloBrochure.pdf. Accessed November 13, 2018.
[3] California Department of Parks and Recreation. 2018. Mount Diablo SP. Website: https://www.parks.ca.gov/?page_id=517. Accessed November 13, 2018.

Regional Parks

The East Bay Regional Park District offers regional parklands and trails in Alameda and Contra Costa counties. The East Bay Regional Park District manages and preserves 121,397 acres within 73 parks and 1,250 miles of trails.[4] Two regional parks are located within 5 miles of the plan area: Diablo Foothills Regional Park and Briones Regional Park.

Diablo Foothills Regional Park

The Diablo Foothills Regional Park is located approximately 6 miles southeast of the plan area in Contra Costa County. The 1,060-acre park contains open land for horseback riding, hiking, bicycling, and nature study. There are no developed facilities in the park. Although the park is open year-round, some parts may be closed at times to protect bird-nesting habitat within the park.[5]

Briones Regional Park

Briones Regional Park is located approximately 3 miles west of the plan area. The 6,225-acre park contains open land for hiking, running, horseback riding, picnicking, birdwatching, and kite flying. The park is open year-round from 8:00 a.m. to sunset.[6]

Plan Area

There are no existing regional parks, recreational facilities, or designated open spaces within the plan area. There is an off-site East Bay Municipal Utilities District (EBMUD) pedestrian and bicycle trail that runs parallel to the on-site Grayson Creek Corridor.

Local Community Parks

The Pleasant Hill Recreation and Park District (RPD) offers community parks and recreational facilities within the City of Pleasant Hill.

The City of Pleasant Hill has adopted a standard of 3 acres of developed parkland for each 1,000 residents, which would require 100 acres for the estimated current estimated population of 33,500. The RPD maintains 203.5 acres of parkland and open space within the City (with 68.0 developed acres), including the portion of the Contra Costa Canal Trail that runs through the City of Pleasant Hill.[7] Twenty-four community parks and recreational facilities are located within 3 miles of the plan area. The closest community park to the plan area is Pleasant Oaks Park, which is located directly adjacent to the plan area across Santa Barbara Road, 70 feet to the north. Table 3.13-1 provides a brief description of the 24 community parks within a 3-mile search radius of the plan area, the recreational amenities that they feature, and the jurisdiction and park department where the park is located.

[4] East Bay Regional Park District. 2018. About the District. Website: https://www.ebparks.org/about/default.htm. Accessed November 13, 2018.
[5] East Bay Regional Park District. 2018. Diablo Foothill Regional Park. Website: https://www.ebparks.org/parks/diablo_foothills/default.htm. Accessed November 13, 2018.
[6] East Bay Regional Park District. 2018. Briones Regional Park. Website: https://www.ebparks.org/parks/briones/default.htm. Accessed November 13, 2018.
[7] City of Pleasant Hill 2003 General Plan. Page 25.

Table 3.13-1: Community Parks within 3 miles of Plan Area

Name	Acreage	Distance from Plan Area (miles)	Jurisdiction and Park Department	Amenities
Pleasant Oak Park	11	0.008	RPD	Baseball/softball diamond, paved walking paths, picnic areas, playground, soccer field
Larkey Park	13	0.73	City of Walnut Creek Walnut Creek Recreation	Playground, basketball court, horseshoe pits, picnic areas, swim center, tennis courts, trail connections, volleyball court
Pleasant Hill Park	16.5	0.86	RPD	Softball diamond, picnic areas, basketball court, playgrounds, community gardens
Sherman Oaks Park	1	0.95	RPD	Picnic tables and playground
Dinosaur Hill Park	13	1.01	RPD	Hiking trails, parking lot
Len Hester Park	4	1.02	City of Concord Concord Parks and Recreation	Paved path and picnic areas
Pinewood Park	n/a	1.10	RPD	Baseball diamond and paved paths
Walden Park	4.5	1.10	City of Walnut Creek Walnut Creek Recreation	Playgrounds, basketball court, disc golf course, handball court, picnic area, trail connections
Rodgers-Smith Park	4.5	1.23	RPD	BBQ area, baseball/softball diamond, basketball court, lighted bocce courts, sand volleyball court
Heather Farms Park	102	1.33	City of Walnut Creek Walnut Creek Recreation	Playgrounds, baseball fields, basketball courts, bike paths, community center, equestrian center, fishing pond, garden center, off-leash dog park, picnic areas, skate parks, soccer fields, swim center, tennis courts, volleyball court
Las Juntas Park	7	1.51	RPD	Paved paths and trails
Brookwood Park	6.3	1.53	RPD	BBQ area, basketball court, picnic tables, and playground
Cambridge Park	10	1.55	City of Concord Concord Parks and Recreation	Children's play area, multi-use turf fields, picnic tables
Frank Salfingere Park	1.5	1.79	RPD	Paved paths

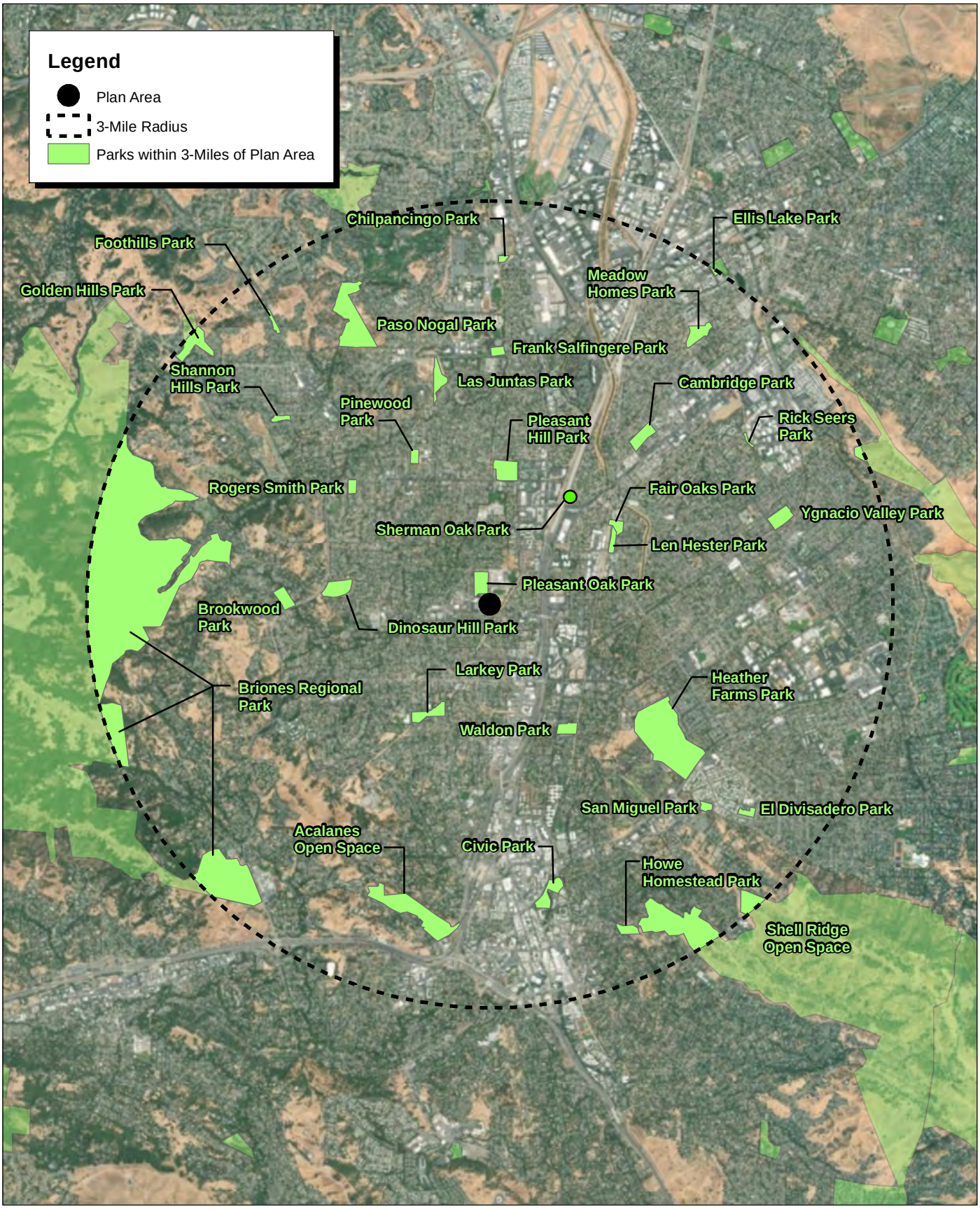
Table 3.13-1 (cont.): Community Parks within 3 miles of Plan Area

Name	Acreage	Distance from Plan Area (miles)	Jurisdiction and Park Department	Amenities
Fox Creek Park	0.5	2.0	Contra Costa County Public Works Department	Barbecue area and picnic tables
Walden Green	2.0	2.0	Contra Costa County Public Works Department	Paved trails and turf area
Civic Park	16.7	2.05	City of Walnut Creek Walnut Creek Recreation	Playgrounds, community center, gazebo, seasonal ice-rink, library, picnic areas, trail connections
Shannon Hills Park	2.5	2.10	RPD	Playground, passive turf area
Ygnacio Valley Park	9.5	2.16	City of Concord Concord Parks and Recreation	Baseball fields, paved path, picnic areas, children's play area
Rick Seers Park	0.75	2.25	City of Concord Concord Parks and Recreation	Basketball court, picnic areas, playground, walking track
Meadow Homes Park	12	2.40	City of Concord Concord Parks and Recreation	Water spray area, playground, athletic fields, picnic areas
Chilpancingo Park	2.5	2.48	RPD	Open space, paved walking paths
Paso Nogal Park	65.5	2.45	RPD	Picnic areas, dog park area, hiking trails
Foothills Park	2.3	2.48	City of Martinez Department of Recreation/Senior Center and Community Services	Neighborhood picnic and recreation area, basketball court and trails
Golden Hills Park	7.0	2.78	City of Martinez Department of Recreation/Senior Center and Community Services	Two lighted tennis courts, multi-use facility, restroom, playground area, basketball court and picnic area
Ellis Lake Park	10	2.95	City of Concord Concord Parks and Recreation	Paved path, children's play area
Note: RPD = Pleasant Hill Recreation and Park District				

The closest designated open spaces to the plan area are Briones Regional Park, located approximately 1.83-miles west of the plan area, and Lime Ridge Open Space, located approximately 3.45-miles east of the plan area.

Plan Area

There are no existing public parks or recreational facilities within the plan area. Exhibit 3.13-1 displays the parks in the vicinity of the plan area.



Source: ESRI Aerial Imagery.

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Exhibit 3.13-1
Parks Within 3-miles of the Plan Area

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3.13.3 - Regulatory Framework

Federal

No federal plans, policies, regulations, or laws related to recreation are applicable to the proposed plan.

State

Quimby Act

The Quimby Act (California Government Code § 66477) was established by the California Legislature in 1965 to preserve open space and parkland in rapidly urbanizing areas of the State. The Quimby Act allows cities and counties to establish requirements for new development to dedicate land for parks, pay an in-lieu fee, or provide a combination of the two.

The Quimby Act provides two standards for the dedication of land for use as parkland. If the existing area of parkland in a community is greater than 3 acres per 1,000 residents, then the community may require dedication based on a standard of up to 5 acres per 1,000 persons residing in the subdivision based on the current ratio of parkland per 1,000 residents. If the existing amount of parkland in a community is less than 3 acres per 1,000 residents, then the community may require dedication based on a standard of only 3 acres per 1,000 persons residing in the subdivision.

The Quimby Act requires a city or county to adopt standards for recreational facilities in its general plan if it is to adopt a parkland dedication or fee ordinance. The City of Pleasant Hill 2003 General Plan includes park standards,[8] and therefore can require the payment of development fees and/or dedication of land pursuant to chapter requires payment of a development fee and/or dedication of land pursuant to Section 17.40.020 of the Pleasant Hill Municipal Code.

It should be noted that the Quimby Act applies only to the acquisition of new parkland; it does not apply to the physical development of new park facilities or associated operations and maintenance costs. Therefore, the Quimby Act effectively preserves open space needed to develop park and recreation facilities, but it does not ensure the development of the land or the provision of park and recreation services to residents. In addition, the Quimby Act applies only to residential subdivisions. Nonresidential projects could contribute to the demand for park and recreation facilities without providing land or funding for such facilities. Quimby Act fees are collected by the local agency (park district, city, or county) in which the new residential development is located.

Local

Pleasant Hill 2003 General Plan

Recreation, Parks, Open Space

Community Development Goals, Policies, and Programs

- **Goal 17:** Offer high-quality park, recreation and trail facilities and programs for residents and visitors.

[8] City of Pleasant Hill. 2003. Pleasant Hill 2003 General Plan, pages 25–28.

- **Program 17.2:** Work with the Recreation and Park District to establish and achieve a standard of 3 acres of developed parkland per 1,000 population.
- **Goal 18:** Provide new sports fields and recreation facilities
- **Policy 18A:** Designate appropriate sites for new playing fields, tennis courts and other facilities.
- **Program 18.1:** Work with the Recreation and Park District to facilitate development and expansion of recreation and park facilities.
- **Program 18.2:** Consider recreation-related development at the former Oak Park Elementary School site or other sites south of Gregory Lane in a manner that accommodates flood control and, where feasible, provides for additional on-site flood control facilities.

Pleasant Hill Municipal Code

The Pleasant Hill Municipal Code, Chapter 18.52, Water Efficient Landscaping, outlines regulations that govern landscape design and development that conserves water. Section 18.52.050 of the Pleasant Hill Municipal Code contains submittal requirements that ensure project applicants submit water efficient landscape applications prior to commencement of grading or constructions. A landscape plan is required to contain information about plant materials, irrigation system design, water features, and grading and soil preparation. The Pleasant Hill Municipal Code, Section 17.40.020, contains provisions for park dedication or payment of an in-lieu fee, or both, at the option of the City, to maintain the City's standard of 3 acres of park area per 1,000 persons residing within a subdivision.

Pleasant Hill Recreation and Park District Master Plan

The RPD conducted community outreach, surveys, and demographic and trend analysis to understand the public's needs for future park service, which informed the Pleasant Hill RPD Master Plan. The Pleasant Hill RPD Master Plan addresses four goals: simplicity, understandability, usability, and accountability. The RPD Master Plan started by assessing current sites and facilities, programs and services, and park classification and level of service. Focus groups were used to determine the public's preferred park and recreational opportunities. The public's top response for new recreation and park opportunities was for new special events, additional athletic fields/courts, parking expansion/improvements, alternative uses for School House and Winslow Center, and a performing arts center.[9] The public's response to the top ten facility/park amenity priority rankings determined that multi-use paved trails (hiking, biking, and walking), multi-use paved trails (for hiking, biking, and walking), and open space conservation areas were the top three ranked uses.[10]

3.13.4 - Impacts and Mitigation Measures

Significance Criteria

According to 2019 California Environmental Quality Act (CEQA) Guidelines Appendix G, to determine whether impacts related to recreation are significant environmental effects, the following questions are analyzed and evaluated. Would the proposed plan:

[9] Pleasant Hill Recreation and Park District (RPD). The BIG Picture, Survey Results.
[10] Pleasant Hill Recreation and Park District (RPD). Master Plan Findings Presentation. Accessed: February 22, 2019. Website: http://pleasanthillrecbigpic.com/about-big-pic.html.

a) 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?

b) Include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?

Approach to Analysis

Impacts related to parks and recreational facilities were determined by evaluating the proposed plan's effect on existing park and recreational facility usage levels. In addition, the analysis assesses whether plan-related population increases could affect achievement of the Pleasant Hill 2003 General Plan parkland standard, and thus whether there would be need for construction or expansion of park and recreational facilities in a manner that would result in environmental impacts.

Specific Thresholds of Significance

For purposes of this analysis, the following thresholds are used to evaluate the significance of recreation impacts resulting from implementation of the proposed plan.

- Result in additional population using recreational facilities and causing physical deterioration of such facilities
- Result in additional population creating need for new or physically altered parks, the construction of which could cause significant environmental impacts, in order to maintain acceptable recreational facilities per capita ratio (specifically 3 acres of park per 1,000 persons).

Impact Evaluation

Effects of Increased Use of Existing Parks

Impact REC-1:	**The proposed plan could 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.**

Construction

Civic Project and Residential Project

Impacts related to increased use of existing parks and recreational facilities are limited to operational impacts. No respective construction impacts would occur.

Operation

The RPD maintains parks, trails, and recreational facilities for public use throughout the City of Pleasant Hill. City park standards are established in the Pleasant Hill 2003 General Plan. Specifically, Community Development Program 17.2 of the General Plan Community Development Element, which is to achieve a level of park facilities equal to 3 acres per 1,000 population or 0.003-acre per person.

Civic Project

The proposed park would consist of two approximately 40,000-square-foot baseball fields. Ball fields would include two dugouts and two bullpens per field for a total of four of each. A 54,000-square-foot

soccer field would overlay on the ball field grass between the two diamonds. The grassy area (that incorporates all the fields and additional grassy area) would total 93,000 square feet. Three, 720 square feet of bocce courts and restroom would be provided as part of the proposed park. The recreational facilities associated with the proposed park (ball fields, soccer fields, grass area, and three bocce courts) would total 95,160 square feet in available proposed on-site parks/recreational facilities.

The recreational facilities within the Civic Project would total over 2.18 acres[11] in available proposed on-site parks/recreational facilities, which exceeds the Pleasant Hill 2003 General Plan parkland requirements of 3 acres per 1,000 residents (0.003 acres per person).

Furthermore, there are multiple community and regional parks in the vicinity of the Civic Project, providing further recreational facilities for residents. The nearest park to the plan area is the 11-acre Pleasant Oaks Park, directly adjacent to the northern boundary of this property across Santa Barbara Road, and the nearest trail to the plan area is the EBMUD trail directly adjacent to the eastern boundary of the Civic Project parallel to the Grayson Creek Corridor. Besides the 24 local community parks located within 3 miles of the plan area, Mount Diablo State Park is located 6 miles southeast of the plan area, Diablo Foothills Regional Park is located approximately 6 miles southeast of the plan area, and Briones Regional Park is located approximately 3 miles west of the plan area. These parks total 27,285 acres in available existing parks. Given the existing proximate parks and recreational facilities, and that the Civic Project would provide recreational facilities, impacts related to potential increased use and physical deterioration of existing parks and recreational facilities would be less than significant.

Residential Project

As discussed in Section 3.11, Population and Housing, Impact POP-1, the Residential Project would develop 34 single-family residential units with seven accessory dwelling units, which would result in a population of approximately 103 residents, requiring 0.31 acres of parkland. While the Residential Project would provide a 0.33-acre pocket park, the Residential Project sponsor has agreed to pay parkland in-lieu fees. Thus, parkland in-lieu fees shall be satisfied for the Residential Project per City of Pleasant Hill ordinance provisions. The parkland in-lieu fees would be collected to fund the acquisition and development of parks in the City of Pleasant Hill to serve City residents. Therefore, impacts related to potential increased use and physical deterioration of existing parks and recreational facilities would be less than significant.

Level of Significance

Less Than Significant (Civic Project and Residential Project)

[11] This number includes the 2.18 acres for the proposed park at 1700 Oak Park Boulevard, but does not include the 0.33-acre community park that is part of the Residential Project.

Effects from Provision of Parks or Recreational Facilities

Impact REC-2: **The proposed plan would include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment.**

Construction

Civic Project

The recreational facilities constructed as part of the Civic Project (ball fields, soccer fields, grass area, and three bocce courts) would total 95,160 square feet in available proposed on-site parks/recreational facilities. In addition, the Civic Project would provide a pedestrian and bike trail connecting the trail on the proposed library property. The Civic Project would also include public recreational facilities including a bicycle path and improved pedestrian sidewalks along Monticello Avenue between Oak Park Boulevard and the Santa Barbara Road as well as a bicycle path and improved pedestrian sidewalks along Oak Park Boulevard between from the EBMUD trail to the western plan area boundary. Construction of these recreational facilities could have an adverse physical effect on the environment.

As described in Impact NOI-1 in Section 3.10, Noise, restricting construction activities to the hours between 7:30 a.m. and 7:00 p.m. on weekdays, 9:00 a.m. and 6:00 p.m. on Saturdays and Sundays (grading is not allowed on Sundays) and implementing best management noise reduction techniques and practices outlined in MM NOI-1, would ensure that construction noise levels would not result in a substantial temporary increase in ambient noise levels. As described in Section 3.2, Air Quality, and Section 3.6, Greenhouse Gas Emissions and Energy, MM AIR-2 would require implementation of BAAQMD best management practices during construction, MM AIR-3 would require the use of construction equipment that would meet Tier IV off-road emissions standards, and MM GHG-1 would require the applicant to implement and document annual GHG emissions reduction measures. Section 3.14, Transportation, determined that demolition and construction of the recreational facilities would result in less than significant impacts to the circulation system, roadway design features, and emergency access with implementation of MM TRANS-1a (preparation and implementation of a construction traffic management plan). As a result, the impact related to provision of parks or recreational facilities on this property would be less than significant with mitigation.

Residential Project

The Residential Project would include public recreational facilities including a small residential-serving pocket park. Construction of this pocket park could have an adverse physical effect on the environment.

However, as analyzed above, with implementation of MM NOI-1, MM AIR-2, MM AIR-3, MM GHG-1, and MM TRANS-1a, construction of the Residential Project would result in less than significant impacts.

Operation

Civic Project and Residential Project

Impacts related to construction or expansion of parks and recreational facilities are limited to construction impacts. No respective operational impacts would occur.

Level of Significance Before Mitigation

Potentially Significant (Construction-period impacts) (Civic Project and Residential Project)

Mitigation Measures

Implement MM AIR-2, MM AIR-3, MM GHG-1, MM NOI-1, and MM TRANS-1a (Civic Project and Residential Project)

Level of Significance After Mitigation

Less Than Significant with Mitigation (Civic Project and Residential Project)

3.13.5 - Cumulative Impacts

The geographic scope of the cumulative parks and recreation analysis consists of the local community and regional parks within the boundary of the City of Pleasant Hill. These include parks and recreational facilities managed by the East Bay Regional Park District and RPD.

The implementation of the proposed plan in conjunction with the projects listed in Chapter 3, Environmental Impact Analysis, Table 3-1, Cumulative Projects, would result in residential and commercial developments as well as recreational facilities within 5 miles of the plan area. Such cumulative development in the plan area would be expected to increase permanent residents of approximately 608 persons. Of these approximately 608 persons, 103 of them would be associated with the Residential Project. This increase in permanent population would result in an increased cumulative demand for park facilities. Cumulative development would also increase daytime population, which would include employee staff and visitors. The increase in daytime population would result in a cumulative increased demand for park facilities. The greater use of parks and recreational facilities in Pleasant Hill could result in physical deterioration of existing parks. However, population growth is only one factor in determining whether parks and recreational facilities would deteriorate through increased use. Other variables include park design, age, infrastructure, and park use. In addition, the proposed plan would result in new recreational facilities that would help offset this cumulative park demand.

To further offset demand, the cumulative projects must demonstrate compliance with applicable design guidelines established in the Pleasant Hill 2003 General Plan. Furthermore, the cumulative projects are subject to park impact fees (refer to Pleasant Hill Municipal Code Section 17.40.020). The City also continues to retain, enhance, and expand park and recreation facilities throughout the City limits, as well as continues to assess its current and future park needs through the development of the RPD Master Plan. The RPD Master Plan assesses current sites and facilities, programs and services, and park classification and level of service. These efforts ensure that the City accommodates the current and anticipated demand for parks and recreational facilities. With payment of park impact fees by the cumulative projects and ongoing oversight by the RPD, there

would be a less than significant cumulative impact related to potential increased use and physical deterioration of existing parks and recreational facilities.

Level of Cumulative Significance

Less Than Significant (Civic Project and Residential Project)

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3.14 - Transportation

3.14.1 - Introduction

This section describes existing conditions related to transportation in the Specific Plan area (plan area) as well as the relevant regulatory framework. This section also evaluates the possible impacts related to transportation that could result from implementation of the Specific Plan (proposed plan). Information in this section is based on applicable policies, regulations, goals, and guidelines established by the City of Pleasant Hill, Contra Costa County, and the Contra Costa Transportation Authority (CCTA) as well as the Transportation Impact Analysis (TIA) (see Appendix J). The following comments were received during the Environmental Impact Report (EIR) scoping period related to transportation:

- Request to coordinate with California Department of Transportation (Caltrans) to determine the appropriate improvements, including bicycle improvements;
- Recommendation for the proposed plan to include Transportation Demand Management Program to reduce Vehicle Miles Traveled (VMT) and greenhouse gas (GHG) emissions;
- Recommendation for the proposed plan to include ramp analysis to avoid traffic conflicts due to queue formation on Interstate 680 (I-680) on southbound off-ramp to Treat Boulevard and on-ramp from North Main Street and Geary Road; and northbound off-ramp to Treat Boulevard and on-ramp from Oak Road;
- Requests for bus stops identified on site plans and that one of the bus stops in the plan area remain open during construction;
- Requests a temporary Americans with Disabilities Act (ADA) accessible bus stop be provided if other bus stops cannot remain open during construction;
- Recommendation to analyze traffic impacts and roadway safety;
- Recommendation that the proposed plan contain a 140 space parking lot;
- Concern about left turn traffic from Monticello Avenue, school traffic, and AM commute traffic on Oak Park Boulevard;
- Concern about inadequate emergency access points into parking lot;
- Concern about available parking space;
- Concern about potential traffic impacts, particularly under cumulative condition; and
- Concern about transportation impacts and safety.

3.14.2 - Existing Conditions

Roadway Facilities

Regional

Interstate 680

The closest regional roadway is I-680. I-680 primarily runs north/south connecting the City of Pleasant Hill to regional destinations such as San José to the south and Fairfield to the north. I-680 is located 0.32 mile east of the plan area and can be accessed via Oak Park Boulevard. In the vicinity of the plan area, this freeway provides five mixed-flow and one high-occupancy vehicle lane in the southbound direction, and five mixed-flow lanes in the northbound direction in addition to auxiliary lanes between interchanges. Access to/from northbound I-680 in the plan area vicinity is provided from Oak Road Boulevard on the east side of the freeway. Access to/from southbound I-680 is provided from Main Street at Sunnyvale Avenue. Ramps at Monument Boulevard/Contra Costa Boulevard also provide freeway access to the area.

Local

Arterials

North Main Street

North Main Street is a north-south four-lane City arterial that runs parallel to I-680. Oak Park Boulevard has an overpass with ramps to access North Main Street. South of Oak Park Boulevard, the right lane in both directions is a Class III bicycle facility with bike sharrow markings. North of Oak Park Boulevard, buffered bicycle lanes are provided until the roadway transitions to Contra Costa Boulevard, where a bicycle lane is provided in the northbound direction and Class III lane marking provided in the southbound direction. Sidewalks are also present on both sides of the road. No on-street parking is allowed along this arterial in the study area. The posted speed limit is 35 miles per hour. North Main Street is located approximately 0.32 mile east of the plan area.

Boyd Road

Boyd Road is an east-west City arterial that runs from Pleasant Hill Road to North Main Street, with one lane in each direction. Boyd Road runs north of Oak Park Boulevard and is located approximately 0.54 mile north of the plan area. The posted speed limit is 25 miles per hour.

Collectors

Oak Park Boulevard

Oak Park Boulevard is an east-west collector City roadway that extends west from Buskirk Avenue to Pleasant Hill Road. It features a bridge across I-680 with two lanes in each direction, and then reduces to a one-lane undivided road in each direction at Pleasant Valley Drive. The roadway has wide shoulders that are primarily used for on-street parking, but is also used by bicyclists. Sidewalks vary along the road, with small stretches without sidewalks on either side of the road. The posted speed limit is 30 miles per hour. The Oak Park Boulevard and North Main Street intersection is located approximately 0.32 mile east of the plan area.

Patterson/Putnam Boulevard

Patterson Boulevard is a north-south City collector roadway that extends from Boyd Road to Oak Park Boulevard where it continues south as Putnam Boulevard. The road has one travel lane in each direction with time of day bicycle lanes created by prohibiting on-street parking between 7:30 a.m. and 6:00 p.m. This roadway contains bike lanes in both directions. The east side of the street has a continuous sidewalk, while the sidewalk on the west side is intermittent. The posted speed limit is 25 miles per hour. The Patterson/Putnam Boulevard cross section is approximately 0.22 mile to the west of the plan area.

Local Streets

Monticello Avenue

Monticello Avenue is a north-south local private roadway with one lane in each direction. The roadway connects Oak Park Boulevard to the Pleasant Hill Middle School and provides a roundabout just south of Santa Barbara Road. Monticello Avenue bisects the plan area with the proposed Residential Project to the west and the Civic Project to the east. Sidewalks are continuously provided on the west side of the roadway. On the east side of the roadway, sidewalks are not provided between Oak Park Boulevard and the parking bulb south of Santa Barbara Road. On-street parking is general allowed along Monticello Avenue. This street provides primary north-south access to the Pleasant Hill Middle School and is heavily used around school peak-hours. On evenings and weekends, it is primarily used to access Pleasant Oaks Park and the existing sports fields to the north of the plan area. Monticello Avenue does not have a posted speed limit and does not contain bicycle lanes.

Monte Cresta Avenue

Monte Cresta Avenue is a north-south two-lane roadway with one lane in each direction that connects Patterson Boulevard to south of Oak Park Boulevard, where it terminates at McNutt Avenue in a residential subdivision. On-street parking is permitted; sidewalks are provided between Santa Barbra Road and Oak Park Boulevard. Monte Cresta Avenue is located approximately 0.05 mile west of the plan area. There is no posted speed limit and there are no bicycle lanes.

Santa Barbara Road

Santa Barbara Road is a two-lane, undivided local east-west roadway with one lane in each direction that connects Monticello Avenue and Patterson Boulevard. On-street parking and sidewalks are provided along the roadway. Santa Barbara Road is located immediately north of the plan area. There is no posted speed limit and there are no bicycle lanes.

Hawthorne Drive

Hawthorne Drive is a two-lane east-west undivided local roadway that is off-set at Patterson Boulevard. To the east of Patterson Boulevard, it provides access to the Pleasant Hill Middle School with sidewalks on the north side of the street; no on-street parking is permitted on this section of roadway. To the west of Patterson Boulevard, it serves a residential neighborhood where on-street parking is allowed, and no sidewalks are provided. Hawthorne Drive is located approximately 0.16 mile to the north of the plan area. There is no posted speed limit and there are no bicycle lanes.

Soule Avenue

Soule Avenue is a two-lane, undivided local east-west roadway that connects to Boyd Road and neighborhood streets. The roadway provides access to arterial streets that lead into surrounding areas. Soule Avenue is located approximately 0.37 mile north of the plan area. There is no posted speed limit and there are no bicycle lanes.

Cleaveland Road

Cleaveland Road is a two-lane, undivided north-south roadway that connects to Boyd Road and neighborhood streets. The roadway provides access to arterial streets that lead into surrounding areas. Cleaveland Road is located to approximately 0.24 mile north of the plan area. There is no posted speed limit and there are no bicycle lanes.

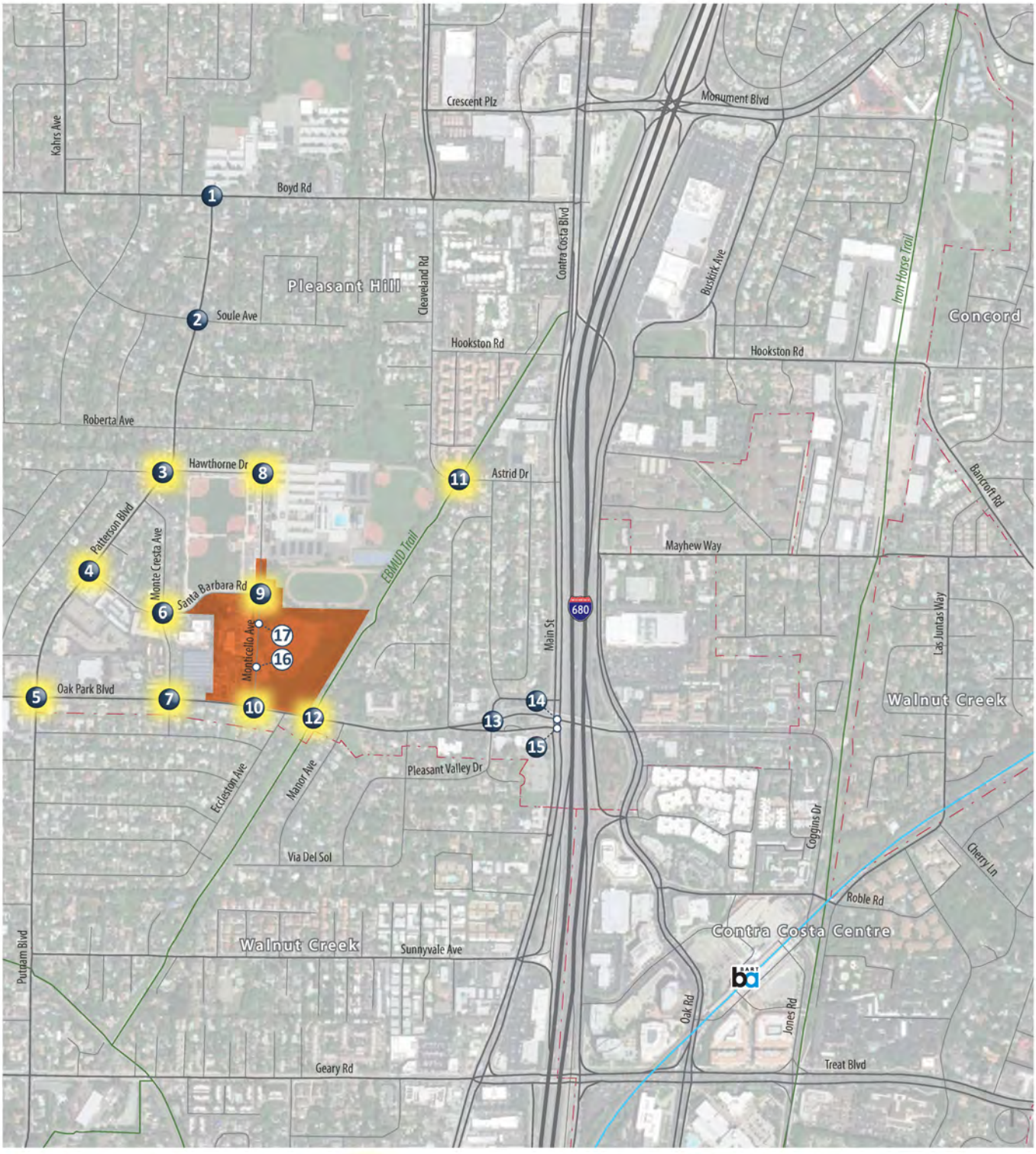
Pleasant Valley Drive

Pleasant Valley Drive is a two-lane, undivided north-south roadway that connects to Oak Park Boulevard and neighborhood streets. The roadway provides access to arterial streets that lead into surrounding areas. There is no posted speed limit and there are no bicycle lanes. Pleasant Valley Road is located approximately 0.24 mile east of the plan area.

Study Area

The following provides a description of the existing principal roadways within the study area. The study area includes the main roadways and intersections within about 1 mile of the plan area. The weekday mid-day (2:00 p.m.to 4:00 p.m.), when the adjacent middle school generate the most weekday vehicular traffic, was also evaluated for a select subset of study intersections closest to the plan area (noted in **bold** below). The 15 study intersections were selected in consultation with City staff based on a review of the plan area and the amount of traffic that could be added to the intersections in the vicinity. (Exhibit 3.14-1)

1. Boyd Road at Patterson Boulevard
2. Soule Avenue at Patterson Boulevard
3. **Hawthorne Drive at Patterson Boulevard**
4. **Santa Barbara Road at Patterson Boulevard**
5. **Oak Park Boulevard at Patterson Boulevard**
6. **Santa Barbara Road at Monte Cresta Avenue**
7. **Oak Park Boulevard Monte Cresta Avenue**
8. **Hawthorne Drive at Monticello Avenue**
9. **Santa Barbara Road at Monticello Avenue**
10. **Oak Park Boulevard at Monticello Avenue**
11. **Oak Park Boulevard at Canal Trail Crossing**
12. **Cleaveland Road at Canal Trail Crossing**
13. Oak Park Boulevard at Pleasant Valley Drive
14. Pleasant Valley Drive at Main Street
15. Oak Park Boulevard at Main Street



Source: FEHR + PEERS, April 2019.

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Exhibit 3.14-1
Study Area Intersection Location Map

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Vehicle Level of Service

Existing traffic operations within the study area were determined using the term "level of service" (LOS). LOS is a qualitative description of traffic operating conditions whereby a letter grade from A (best or free-flow conditions) to F (worst or over capacity/severe congestion conditions) is assigned. These grades represent the perspective of drivers and are an indication of the comfort and convenience associated with driving, such as speed, travel time, delay, and freedom to maneuver. LOS E corresponds to operations "at capacity." When volumes exceed capacity, stop-and-go conditions occur, and operations are designated LOS F. Existing LOS at the study intersections was determined for weekday AM and PM peak-hours.

The City does not maintain a database of information related to roadway segment LOS, therefore the following description is limited to intersection LOS data within the study area. To determine the existing operations of intersections within the study area, observed peak-hour factors[1] as well as truck, pedestrian, and bicycle activity were utilized. Study intersections were determined to operate within an overall service level standard, LOS D or better, set by the City and the CCTA during both the weekday morning and weekday evening peak-hours, which was confirmed during field observations. Different criteria are used to determine LOS of existing signalized and existing unsignalized (stop-controlled) intersections.

As discussed below, different methods were used to determine existing LOS at signalized and un-signalized (stop-controlled) intersections.

Signalized Intersections

Operations of signalized intersections were determined using the method from Transportation Research Board's 2010 Highway Capacity Manual (HCM 2010). The method uses various intersection characteristics (traffic volumes, lane geometry, and signal phasing) to estimate the average control delay experienced by motorists traveling through an intersection. Control delay incorporates delay associated with deceleration, acceleration, stopping, and moving up in the queue. The criteria for the various intersection LOS designations are presented in Table 3.14-1.

Table 3.14-1: Signalized LOS Criteria for Intersections

LOS	Control Delay (sec/vehicle)		Description
	Signalized Intersections (a)	Unsignalized Intersections (b)	
A	≤10.0	≤10.0	Operations with very low delay and most vehicles do not stop.
B	>10.0 and ≤20.0	>10.0 and ≤15.0	Operations with good progression but with some restricted movement.
C	>20.0 and ≤35.0	>15.0 and ≤25.0	Operations where a significant number of vehicles are stopping with some backup and light congestion.

[1] The relationship between the peak 15 minute flow rate and the full hourly volume is given by the peak-hour factor (PHF) based on the following equation: PHF=Hourly volume/(4* volume during the peak 15 minutes of flow). The analysis of LOS is based on peak rates of flow occurring within the peak-hour because substantial short-term fluctuations typically occur during an hour.

Table 3.14-1 (cont.): Signalized LOS Criteria for Intersections

LOS	Control Delay (sec/vehicle)		Description
	Signalized Intersections (a)	Unsignalized Intersections (b)	
D	>35.0 and ≤55.0	>25.0 and ≤35.0	Operations where congestion is noticeable, longer delays occur, and many vehicles stop. The proportion of vehicles not stopping declines
E	>55.0 and ≤80.0	>35.0 and ≤50.0	Operations where there is significant delay, extensive queuing, and poor progression.
F	>80.0	>50.0	Operations that are unacceptable to most drivers, when the arrival rates exceed the capacity of the intersection.

Notes:
(a) 2010 Highway Capacity Manual, Chapter 18, Page 6, Exhibit 18-4
(b) 2010 Highway Capacity Manual, Chapter 19, Page 2, Exhibit 19-1
Source: Fehr & Peers 2019.

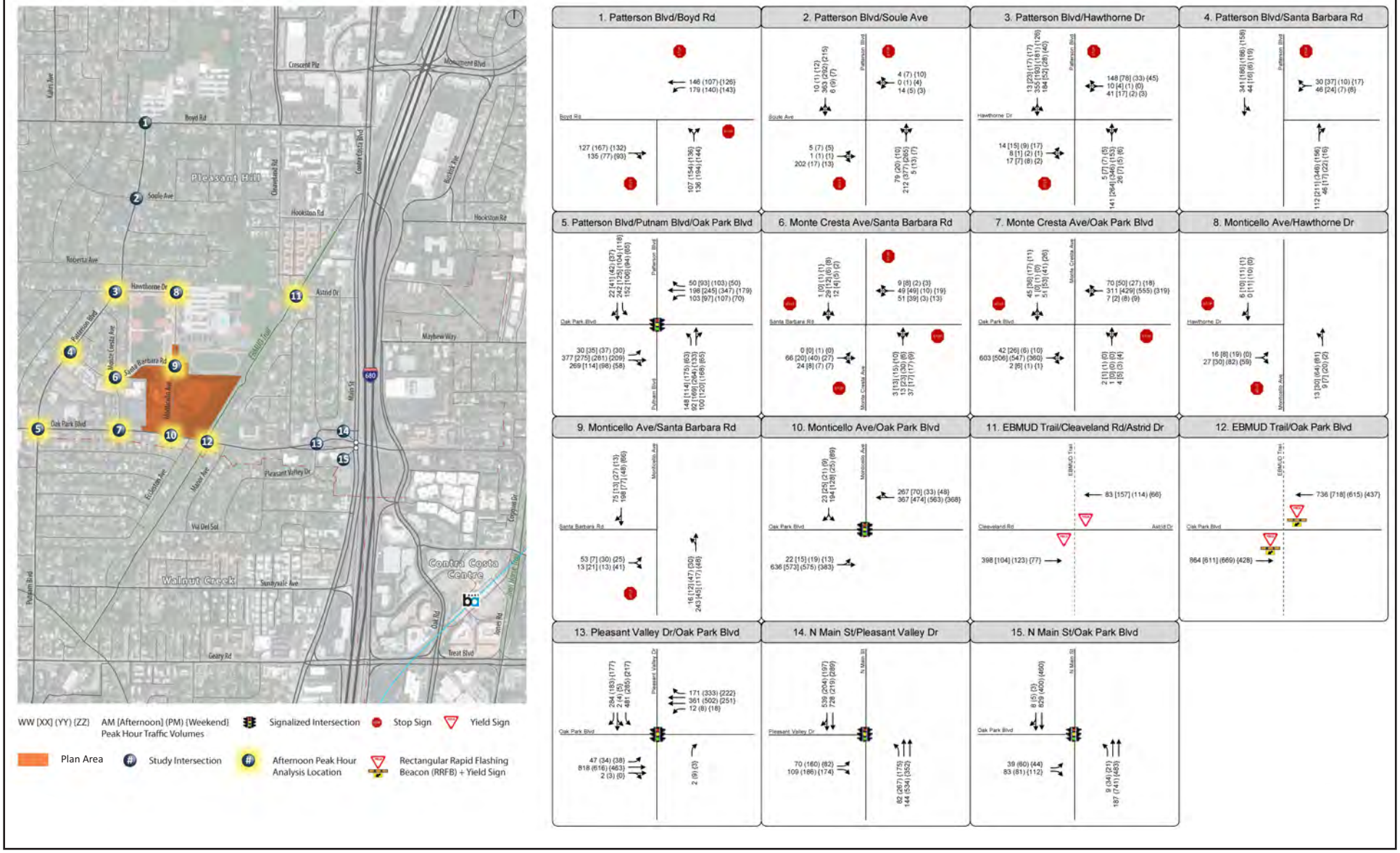
Unsignalized Intersections

Operations at unsignalized intersections were determined using the method from the HCM 2010. With this method, operations are defined by the average control delay per vehicle (measured in seconds) for each movement that must yield the right-of-way. At two-way or side street-controlled intersections, the control delay (and LOS) is calculated for each controlled movement, the left-turn movement from the major street, and the entire intersection. For controlled approaches composed of a single lane, the control delay is computed as the average of all movements in that lane. The delays for the entire intersection and for the movement or approach with the highest delay are reported. The criteria for the various intersection LOS designations are presented in Table 3.14-1.

Study Area

Traffic Counts

Weekday AM (7:00 a.m. to 9:00 a.m.), weekday mid-day (2:00 p.m. to 4:00 p.m.), weekday PM (4:00 p.m. to 6:00 p.m.), and Saturday afternoon (1:00 p.m. to 3:00 p.m.) peak period intersection turning movement counts were conducted at the study intersections over a 72-hour period (Thursday through Saturday). The counts were conducted on clear days in May 2018 with area schools in session and a tournament at the Pleasant Oaks Park in the immediate vicinity of the plan area. In addition, separate counts were conducted for pedestrians, bicycles and heavy vehicles. For each of the count periods, a global peak-hour was identified. The weekday AM, mid-day, and PM peak-hours were identified to be 7:15 a.m. to 8:15 a.m., 2:30 p.m. to 3:30 p.m., and 4:45 p.m. to 5:45 p.m., respectively. The Saturday peak-hour was identified to be 1:00 p.m. to 2:00 p.m. The peak-hour volumes are presented on Exhibit 3.14-2 along with the existing lane configuration and traffic control. Existing bicycle and pedestrian volumes are shown on Exhibit 3.14-3. Traffic count worksheets are provided in the traffic impact study (see Appendix J).



Source: FEHR + PEERS, April 2019.

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Exhibit 3.14-2
Existing Peak Hour Volumes

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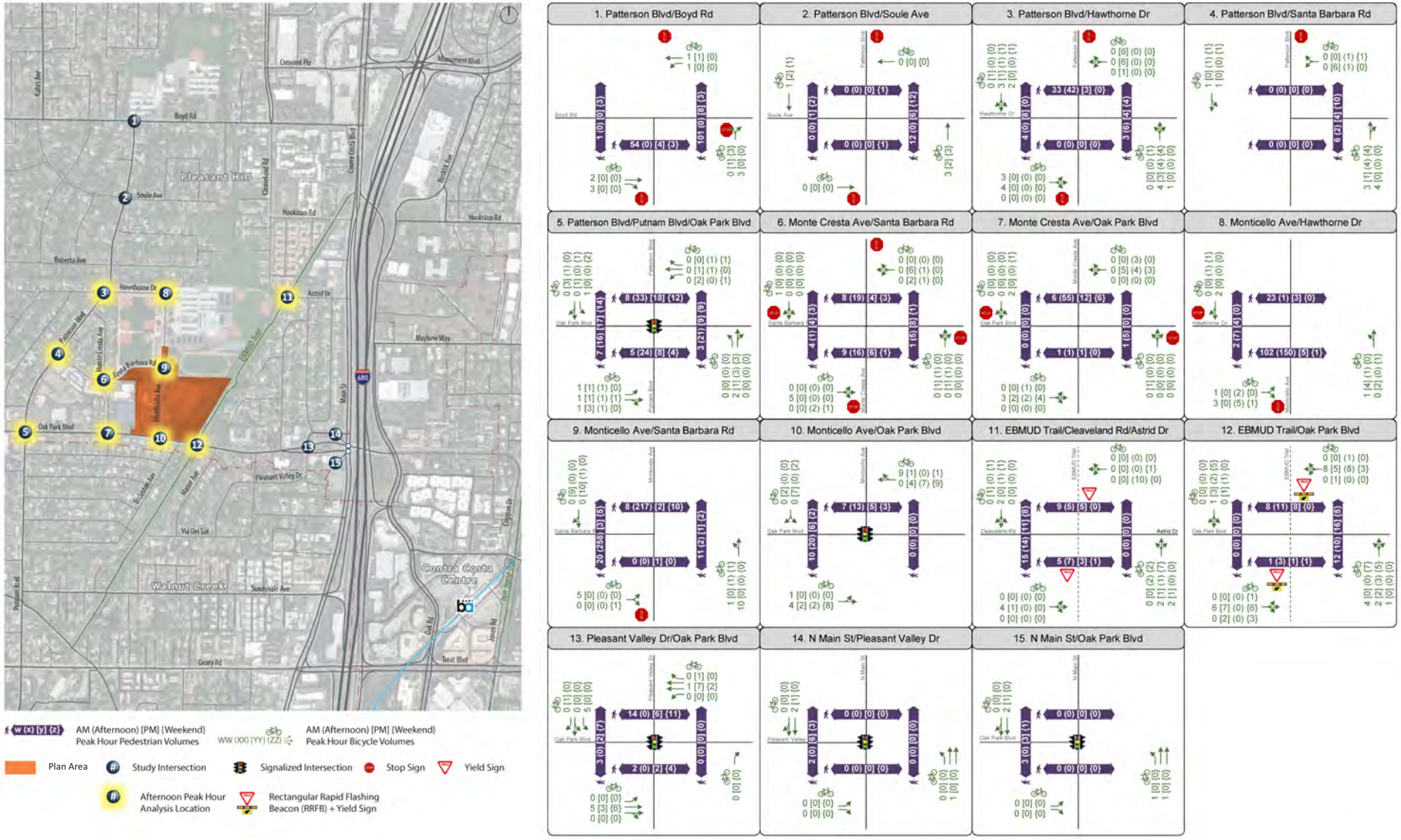

Source: FEHR + PEERS, April 2019.

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Exhibit 3.14-3
Existing Peak Hour Bicycle and Pedestrian Volumes

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Existing daily traffic counts were collected at the following locations:

- Hawthorne Drive, east of Patterson Boulevard
- Monte Cresta Avenue, east of Patterson Boulevard
- Santa Barbara Road, east of Patterson Boulevard
- Monte Cresta Avenue, north of Oak Park Boulevard
- Monticello Avenue, north of Oak Park Boulevard
- Oak Park Boulevard at the East Bay Municipal Utilities District (EBMUD) Trail Crossing

The average daily traffic volumes on these roadways are summarized in Table 3.14-2 and on Exhibit 3.14-4. Traffic volumes on local streets in the area are less than 1,500 vehicles per day and volumes on collectors are less than 3,000 vehicles per day. Hawthorne Drive and Monticello Avenue are the primary access routes to the Pleasant Hill Middle School and park areas, and as such, they experience the highest level of vehicle traffic, mostly concentrated around school bell times. Traffic volumes on Oak Park Boulevard are in the expected range for an arterial street. Saturday activity in the area is less than weekday activity, even considering tournament activities.

Table 3.14-2: Existing Daily Traffic Volumes

Roadway	Roadway Classification	Average Weekday		Saturday	
		Daily Traffic[1]	Peak-hour Traffic[2]	Daily Traffic	Peak-hour Traffic
Hawthorne Drive, east of Patterson Boulevard	Local Street	1,480	320	1,330	200
Monte Cresta Avenue, east of Patterson Boulevard	Local Street	340	60	210	30
Santa Barbara Road, east of Patterson Boulevard	Local Street	730	140	610	80
Monte Cresta Avenue, north of Oak Park Boulevard	Local Street	1,260	200	740	80
Monticello Avenue, north of Oak Park Boulevard	Collector	2,120	480	1,610	190
Oak Park Boulevard at East Bay MUD Trail Crossing	Arterial	12,870	1,300	9,500	860

Notes:
[1] Average daily two-way traffic measured over two days in May 2018, rounded to the nearest 10.
[2] Average peak-hour volume from the two weekdays of data collection; the peak-hour of traffic in the immediate vicinity of the plan area is the morning, generally between 7:15 a.m. and 8:15 a.m., which is heavily influenced by school travel in the area. In the afternoon, school traffic is more dispersed.
Source: Fehr & Peers 2018.

Intersection Levels of Service

Existing study area intersections operations, including LOS, were determined using the methodology described above. The results are summarized in Table 3.14-3 based on the HCM 2010 method unless

otherwise specified. Observed peak-hour factors were used at all intersections, and truck, pedestrian and bicycle activity was factored into the determination. Study intersections generally operate at overall acceptable service levels in accordance with benchmarks set by the City during both the weekday morning, weekday afternoon, weekday evening, and Saturday afternoon peak-hours. The anticipated intersection operations were confirmed during field observations in the course of preparing the TIA. Detailed intersection LOS calculation worksheets are provided in the TIA (see Appendix J).

Although the study intersections are shown to operate within acceptable levels of service, significant levels of traffic diversion from I-680 and other regional travel routes can occur through the study area when there is recurring and non-recurring congestion on other routes. Congestion on I-680, State Route (SR) 242, and SR-24 can influence the operations of intersections in the study area–for example, when traffic deviates from I-680 to Main Street, it can result in vehicle queue spillback that often extends from Geary Road through the signal at Oak Park Boulevard. The data collection effort and subsequent analysis is reflective of a day when there was not a major incident that resulted in atypical traffic diversion through the study area. Analyzing the effects of the traffic associated with the proposed plan on roadway operations considering increased traffic diversion due to non-recurring incidents on the regional transportation system would serve to dilute the effects of traffic associated with the proposed plan and would reduce the proposed plan's proportionate share to potential impacts. In addition, traffic conditions in the study area are heavily influenced by school related traffic, especially along Boyd Road, Patterson Boulevard, Hawthorne Drive and Monticello Avenue. These peaking characteristics are accounted for in the analysis. Depending on when someone travels through an intersection, their travel experience can be different from shown in Table 3.14-3.

Table 3.14-3: Existing Peak-hour Intersection Level of Service

Intersection	Intersection Control[1]	Peak-hour[3]	Existing Conditions	
			Delay (in Seconds)[4]	LOS
1. Boyd Road at Patterson Boulevard	AWSC	AM PM SA	12 12 11	B B B
2. Soule Avenue at Patterson Boulevard	SSSC	AM PM SA	5 (39) 1 (15) 1(12)	A (E) A (B) A (B)
3. Hawthorne Drive at Patterson Boulevard	SSSC	AM MD PM SA	9 (38) 3 (14) 1 (11) 2 (10)	A (E) A (B) A (B) A (A)
4. Santa Barbara Road at Patterson Boulevard	SSSC	AM MD PM SA	2 (14) 2 (11) 1 (12) 1 (11)	A (B) A (B) A (B) A (B)
5. Oak Park Boulevard at Patterson Boulevard	Signalized	AM MD PM SA	41 19 21 14	D B C B

Table 3.14-3 (cont.): Existing Peak-hour Intersection Level of Service

Intersection	Intersection Control[1]	Peak-hour[3]	Existing Conditions	
			Delay (in Seconds)[4]	LOS
6. Santa Barbara Road at Monte Cresta Avenue	AWSC	AM MD PM SA	8 9 7 7	A A A A
7. Oak Park Boulevard Monte Cresta Avenue	SSSC	AM MD PM SA	3 (30) 3 (39) 2 (38) 1 (17)	A (D) A (E) A (E) A (C)
8. Hawthorne Drive at Monticello Avenue	SSSC	AM MD PM SA	10 (11) 7 (10) 7 (9) 8 (9)	A (B) A (A) A (A) A (A)
9. Santa Barbara Road at Monticello Avenue	SSSC	AM MD PM SA	2 (17) 3 (16) 3 (11) 4 (10)	A (C) A (C) A (B) A (A)
10. Oak Park Boulevard at Monticello Avenue	Signalized	AM MD PM SA	7 6 3 4	A A A A
11. Oak Park Boulevard at Canal Trail Crossing	NA	NA	NA	NA
12. Cleaveland Road at Canal Trail Crossing	NA	NA	NA	NA
13. Oak Park Boulevard at Pleasant Valley Drive[2]	Signalized	AM PM SA	11 10 13	B A B
14. Pleasant Valley Drive at Main Street[2]	Signalized	AM PM SA	15 11 11	B B B
15. Oak Park Boulevard at Main Street[2]	Signalized	AM PM SA	7 9 9	A A A

Notes:
Bold indicates operations below the local LOS standard for acceptable operations (below LOS D).
[1] AWSC = All-way Stop Controlled; SSSC = Side-street Stop Controlled
[2] Intersections 13, 14, and 15 are evaluated using the HCM 2000 methodology.
[3] AM = morning; MD = mid-day; PM = afternoon; SA = Saturday
[4] For side-street stop-controlled intersections, delay is presented for intersection average (worst movement).
Source: Fehr & Peers 2018.

Queuing

Existing vehicle queues were determined for each left and right turn pocket at the signalized intersections within the study area.

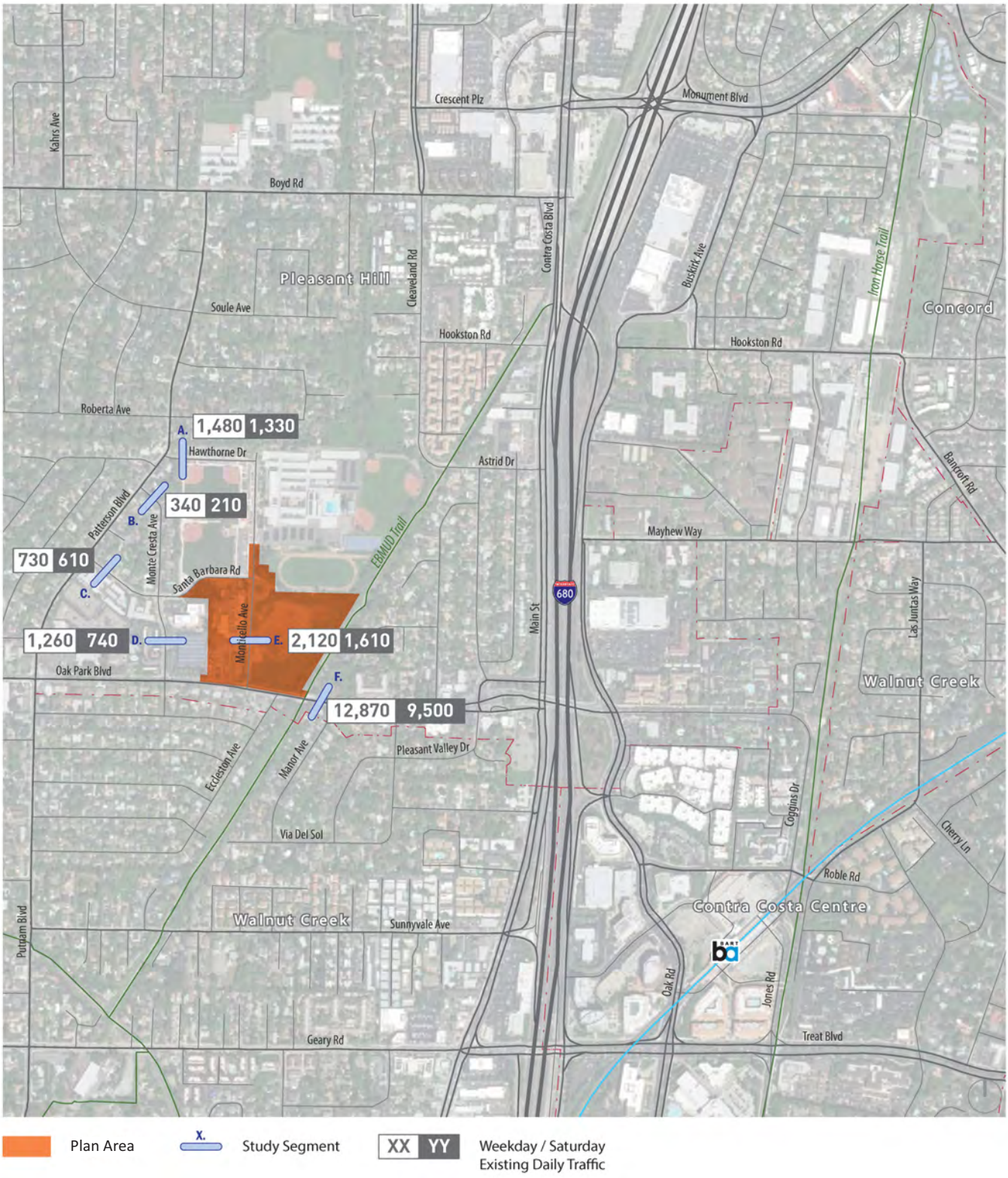
Study Area

Although all intersections currently operate within the standards set by the City, there can be periodic vehicle queue spillback and delays greater than shown in Table 3.14-4 for some movements. For signalized intersections, Table 3.14-4 presents the 95th percentile vehicle queues for turn movements with exclusive lanes. Queue worksheets are provided in the TIA (see Appendix J).

Table 3.14-4: Existing Intersection Turn-lane Queues

Intersection	Movement	Storage Length (ft)[1]	AM Peak-hour	Mid-day Peak-hour	PM Peak-hour	Saturday Peak-hour
5. Putnam Boulevard/Oak Park Boulevard and Patterson Boulevard	EBL	100	50	75	75	50
	WBL	110	**200**	**150**	**150**	100
	WBR	230	20	50	75	25
	NBL	100	**200**	**125**	**150**	50
	SBL	210	200	125	100	50
10. Oak Park Boulevard and Monticello Avenue	SB	700	175	100	50	75
13. Pleasant Valley Drive and Oak Park Boulevard	EBL	80	75	—	50	50
	WBL	80	25	—	25	50
	WBR	125	25	—	75	25
	NBR	25	0	—	0	0
	SBL	100	**175**	—	**125**	75
	SBR	100	50	—	50	50
14. North Main Street and Pleasant Valley Drive	EBL	400	75	—	150	75
	EBR	100	75	—	25	25
	NBL	110	75	—	**125**	75
15. North Main Street and Oak Park Boulevard	EBL	100	50	—	75	50
	EBR	100	75	—	75	100
	MBL	110	25	—	50	25

Notes:
Bold indicates queue potentially extends beyond available storage.
— = intersection was not evaluated for this time period.
[1] An additional 60 to 90 feet of storage is typically provided in the taper area outside of the through lane, which is not reflected in the storage length above.
Source: Fehr & Peers 2018.



Source: FEHR + PEERS, April 2019.

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Exhibit 3.14-4
Existing Daily Roadway Segment Volumes

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As shown in Table 3.14-4, the following lanes in the study area currently have 95th percentile queues that exceed the available storage length:

- **Intersection 5:** Oak Park Boulevard at Patterson Boulevard
  - Westbound Lane (AM, mid-day, and PM peak-hour)
  - Northbound Lane (AM, mid-day, and PM peak-hour)
- **Intersection 13:** Pleasant Valley Drive and Oak Park Boulevard
  - Southbound Lane (AM and PM peak-hour)
- **Intersection 14:** North Main Street and Pleasant Valley Drive
  - Northbound Lane (PM peak-hour)

Public Transit Service and Facilities

Transit rail and bus service in the vicinity of the plan area is primarily provided by Bay Area Rapid Transit (BART) and The County Connection, with existing transit facilities and routes in the area (see Exhibit 3.14-5).

Study Area within City of Pleasant Hill

Bay Area Rapid Transit

BART provides passenger rail transit service within the metropolitan Bay Area. BART currently has five operating lines: Pittsburg/Bay Point-Colma, Fremont-Daly City, Richmond-Colma, Dublin/Pleasanton Daly City, and Fremont-Richmond. BART operates between 4:00 a.m. and midnight on weekdays. During the AM and PM peak commute periods, train service runs at 15-minute intervals to each destination. BART provides regional transportation connections to much of the Bay Area and the Antioch line provides direct access to San Francisco, with several stops in Oakland where connections may be made to other lines. The study area is served by the BART Pleasant Hill/Contra Costa Centre Station.

County Connection

County Connection provides bus transit service to various communities in central Contra Costa County including the City of Pleasant Hill. Operations include local and school buses and is a paratransit service provider. The study area is served by Route 9, which travels on Oak Park Boulevard and Patterson Boulevard and connects to the BART Pleasant Hill Station. At that BART station, connections to numerous other County Connection routes and other transit service providers are available.

Plan Area

Bay Area Rapid Transit

The BART Pleasant Hill/Contra Costa Center Station, which is served by the yellow Antioch-SFO/Millbrae line, serves the plan area and is located approximately 0.75 mile southeast of the plan area. BART train frequency ranges between 6-20 minutes from approximately 5:00 a.m. to 12:00 a.m. Based on 2018 data from BART, approximately 8,000 passengers per day enter/exit the BART system at the Pleasant Hill/Contra Costa Center Station.

County Connection

The plan area is also served by County Connection bus Route 9, which travels on Oak Park Boulevard and Patterson Boulevard in the study area. Route 9 connects to the Pleasant Hill BART Station, Diablo Valley College, and numerous schools, residential areas, and commercial areas along the way. Service is provided on headways ranging between 30 and 60 minutes. On a typical weekday, this route serves approximately 500 passengers a day, with the majority of riders with a destination at the BART station or Diablo Valley College. Approximately 50 passengers per day on Route 9 originate from within the study area and access service from a stop on Oak Park Boulevard or Patterson Boulevard. Transit rail and bus stops in the immediate vicinity of the plan area are shown on Exhibit 3.14-5.

Bicycle Facilities

The Highway Design Manual defines four types of bicycle facilities:[2]

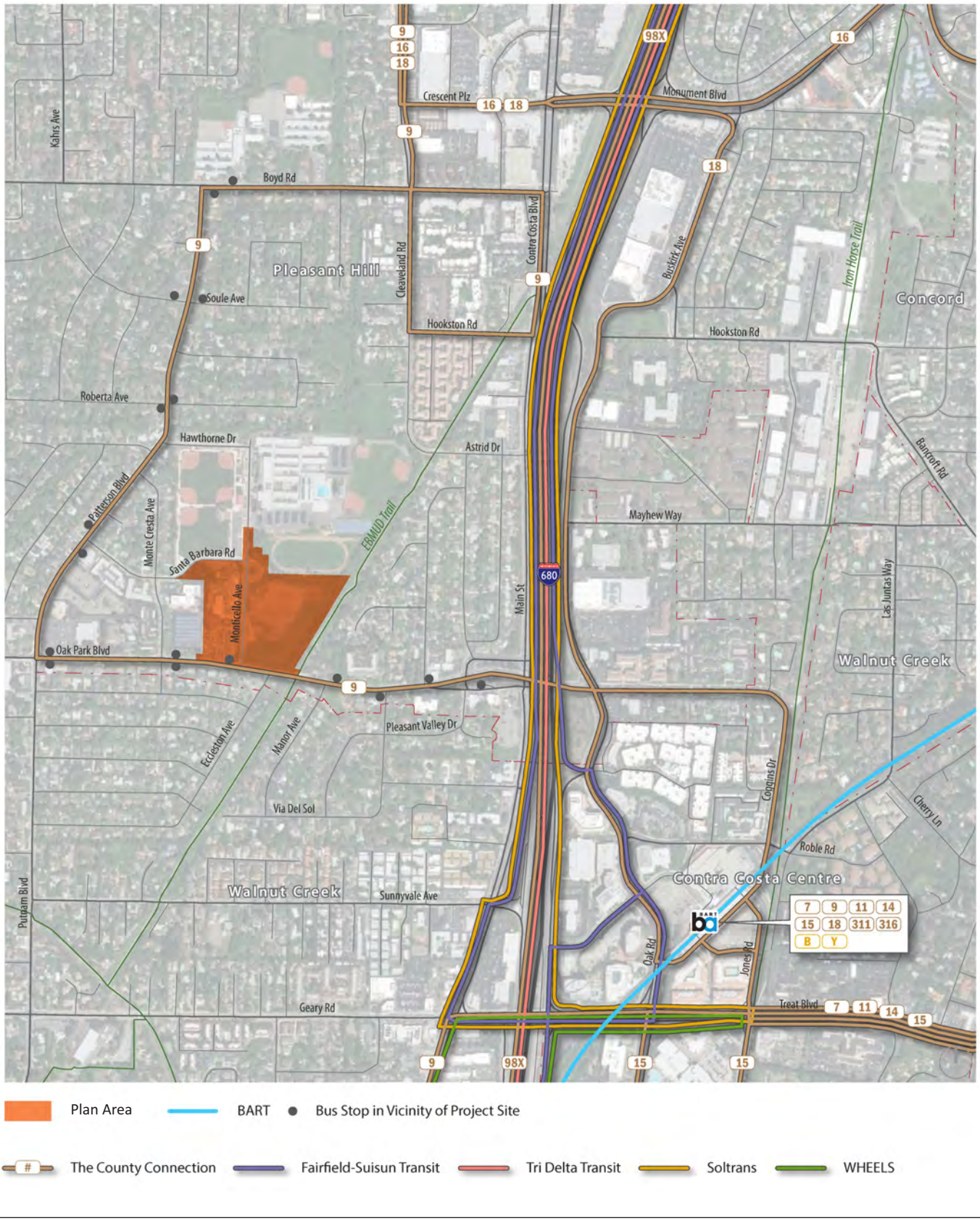
- **Class I: Multi-use Path**—These paths provide a completely separate right-of-way and are designated for the exclusive use of bicycles and pedestrians with vehicle cross-flow minimized.
- **Class II: Bicycle Lane**—These bicycle lanes provide a restricted right-of-way and are designated for the use of bicycles for one-way travel with a striped lane on a street or highway. These bicycle lanes are generally a minimum of five feet wide, and vehicle/pedestrian cross-flow is permitted.
- **Class III: Bicycle Route with Sharrows**—These bikeways provide right-of-way designated by signs or pavement markings for shared use with motor vehicles. These bikeways include sharrows or "shared-lane markings" to highlight the presence of bicyclists.
- **Class IV: Buffered Bicycle Lanes**—These bicycle lanes consist of a physically separate lane for increased comfort and protection of bicyclists. These bicycle lanes can be physically separated by a barrier, such as planters or on-street parking, grade-separated from the roadway, or a painted buffer area.

Study Area within City of Pleasant Hill

The City of Pleasant Hill has a bicycle network that runs throughout the City. The City has a relatively flat topography with several scenic bike routes. Exhibit 3.14-6 shows the location of various bicycle facilities in southeast Pleasant Hill, which includes Class IV and Class III facilities on North Main Street, Class II bicycle facilities on Patterson Boulevard created by time of day parking restrictions, and Class II and Class III bicycle facilities on portions of Oak Park Boulevard.

The EBMUB Trail is a shared-use path that crosses Oak Park Boulevard approximately 400 feet east of Monticello Avenue. The trail connects to the Contra Costa Canal Trail to the south and Contra Costa Boulevard to the north of the plan area. From the Contra Costa Canal Trail, connections can be made to the regional trail system including the Iron Horse Trail approximately 0.73 mile to the southeast of the plan area.

[2] California Department of Transportation (Caltrans). 2009. Highway Design Manual, Chapter 1000 Bicycle Transportation Design. Website: http://www.dot.ca.gov/hq/oppd/hdm-before-5-7-2012-change/oldhdmtoc.htm. Accessed September 20, 2018.



Source: FEHR + PEERS, April 2019.

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Exhibit 3.14-5
Existing Transit Facilities

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Source: FEHR + PEERS, April 2019.

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Exhibit 3.14-6
Existing Bicycle Facilities

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Plan Area

The plan area contains minimal bicycle infrastructure. No bike paths are located along Monticello Avenue or Santa Barbara Road. However, a Class I Multi-Use Path is located immediately east of the plan area along the off-site adjacent EBMUD Trail. In addition, a Class III Bike Route runs along Oak Park Boulevard and connects to surrounding off-site bicycle infrastructure (bicycle paths, lanes, routes, and protected paths) connecting to the EBMUD Trail and a Class II bike lane on Patterson Boulevard. Existing bicycle volumes are shown on Exhibit 3.14-3.

Pedestrian Facilities

Walkability is defined as the ability to travel easily and safely between various origins and destinations without having to rely on automobiles or other motorized travel. The ideal "walkable" community includes wide sidewalks, a mix of land uses such as residential, employment, and shopping opportunities, a limited number of conflict points with vehicle traffic, and easy access to transit facilities and services.

Pedestrian facilities consist of crosswalks, sidewalks, pedestrian signals, and off-street paths, which provide safe and convenient routes for pedestrians to access the destinations such as institutions, businesses, public transportation, and recreation facilities.

Study Area within City of Pleasant Hill

The majority of residential streets in southeast Pleasant Hill, including those streets near the plan area, do not have sidewalks. A number of high-visibility crosswalks with pedestrian actuated warning light systems are located at trail and street crossings on Oak Park Boulevard and Cleaveland Road, and Patterson Boulevard at Hawthorne Drive.

Plan Area

Sidewalk coverage is not ubiquitous through and within the plan area, and there are gaps along sections of Oak Park Boulevard and Monticello Avenue within the plan area. Sidewalks are continuously provided on the west side of Monticello Avenue within the plan area. On the east side of the roadway, sidewalks are not provided between Oak Park Boulevard and the parking bulb south of Santa Barbara Road. Sidewalks conditions and availability vary along Oak Park Boulevard, where small stretches of roadway do not have sidewalks on either side of the road. Sidewalks are provided along both sides of Santa Barbara Road.

Vehicle Miles Traveled

Study Area

The existing average trip lengths for the City of Pleasant Hill, Contra Costa County, and the greater Bay Area based on Metropolitan Transit Commission (MTC) data are presented in Table 3.14-5.

Table 3.14-5: Existing Average Trip Lengths

Land Use Type	Pleasant Hill	Contra Costa County	Bay Area
Home Base VMT	17.5	18.0	15.3
Work VMT	25.9	27.2	22.7
Source: MTC, Fehr & Peers 2018.			

Home-based trips in Pleasant Hill and Contra Costa County are slightly higher than the Bay Area average, while work based trips to jobs in Pleasant Hill are lower than the county average, but higher than the Bay Area average, indicating that people who have jobs in Pleasant Hill tend to commute longer than average distances than the remainder of the Bay Area.

Plan Area

The plan area is currently occupied by a library that serves the surrounding area. It is expected that employees of the library would have similar VMT patterns as the remainder of the City, while the trip lengths of patrons would be much lower as the library is a community serving use. The remaining portions of the site are vacant and are not currently generating VMT.

Roadway Geometry Design

Study Area

Roadways in the study area were designed and built to the design standards in effect at the time of roadway construction. However, since the construction of some roadways, design standards have changed. For example, City Standards now require the construction of sidewalk facilities on new public roadways. As described in the previous section, many of the streets in the study area do not have continuous sidewalk facilities.

Plan Area

Monticello Avenue does not currently meet City of Pleasant Hill design standards as continuous sidewalks are not provided on both sides of the street. Sidewalks along the frontage of the plan area on Santa Barbara Road also do not meet design standards as ADA accessible ramps are not provided at the existing driveways serving the northern library parking lot, and there are utility poles within the sidewalk area that impede the accessible path of travel. Additionally, there are no ADA-compliant curb ramps at the Monticello Avenue at Santa Barbara Road intersection.

Emergency Access and Routes

Study Area

The main route within the study area that would likely be used as an evacuation route is I-680.

Plan Area

The main evacuation routes into and out of the plan area would be Oak Park Boulevard, Monticello Avenue, and Santa Barbara Road. These roadways would be used to in order to access I-680.

Parking

Study Area

On-street and off-street parking facilities are provided throughout the City of Pleasant Hill.

Plan Area

Approximately 945 parking spaces within the immediate vicinity of the plan area were included in the parking survey, including off-street parking for library, middle school, park, and Contra Costa County Education building, as well as on-street parking along Santa Barbara Road, Hawthorne Drive, Monte Cresta Avenue, and Monticello Avenue. A weekday and weekend parking demand survey was conducted for the locations shown on Exhibit 3.14-7, with the weekday demand shown on Exhibit 3.14-8 and the Saturday demand shown on Exhibit 3.14-9. Parking supply and demand by area is also summarized in Table 3.14-6. Parking data collection sheets are provided in Appendix J.

Table 3.14-6: Existing Parking Conditions

Parking Location	Total Supply	Saturday Demand		Weekday Demand	
		10:00 a.m.	12:00 p.m.	2:00 p.m.	6:00 p.m.
A. Hawthorne Lot	76	41	57	14	75
B. Hawthorne Drive	21	11	8	7	18
C. Santa Barbara Road Between Patterson and Monte Cresta	36	23	24	15	20
D. Santa Barbara Road between Monte Cresta and Monticello Avenue	42	18	38	18	38
E. Oak Park Boulevard Monte Cresta and Monticello Avenue	31	18	3	1	1
F. Monte Cresta between Santa Barbara Road and Oak Park	34	18	19	15	15
G. Monte Cresta Between Hawthorne and Santa Barbara Road	50	18	4	4	13
H. Monticello Avenue between Santa Barbara Road and Oak Park	35	18	0	11	0
I2. Bulbout	13	0	0	13	4
I1. Monticello Avenue between Parking Lot and Santa Barbara Road	30	21	18	13	28
J. North Library Lot	42	22	30	13	29
K. South Library Lot	139	55	52	70	47
L. School Parking Lot	124	62	59	54	24
M. Solar Panel Lot (County Office of Education)	165	16	17	84	30
N. Monticello Avenue Lot	57	55	55	32	57

Table 3.14-6 (cont.): Existing Parking Conditions

Parking Location	Total Supply	Saturday Demand		Weekday Demand	
		10:00 a.m.	12:00 p.m.	2:00 p.m.	6:00 p.m.
O. Monticello Avenue between Hawthorne and Midblock	31	12	12	21	22
P. Monticello Avenue between Midblock and School Lot entrance	19	15	13	9	19
Total	**945**	**423**	**409**	**394**	**440**
Overall Occupancy	45%	43%	42%	47%	45%

Overall, sufficient parking supplies are provided within the study area to accommodate existing parking demands, although some areas can experience high levels of parking demand depending on the time of day and day of week. For example, parking demand for the library lot is approximately 50 percent of the supply on a weekday afternoon at 2:00 p.m., but decreases to 35 percent at 6:00 p.m. On a Saturday, parking demand is approximately 40 percent of the supply. Parking areas around the park were at capacity on weekday evenings and on Saturday at noon when tournaments are being held. Street parking closest to the park and school experienced high levels of demand, while parking demand on the Monte Cresta Avenue was less than 20 percent of the available supply. This indicates that while parking demand from sports park activities is high, it does not appear to spill onto neighboring streets.

3.14.3 - Regulatory Framework

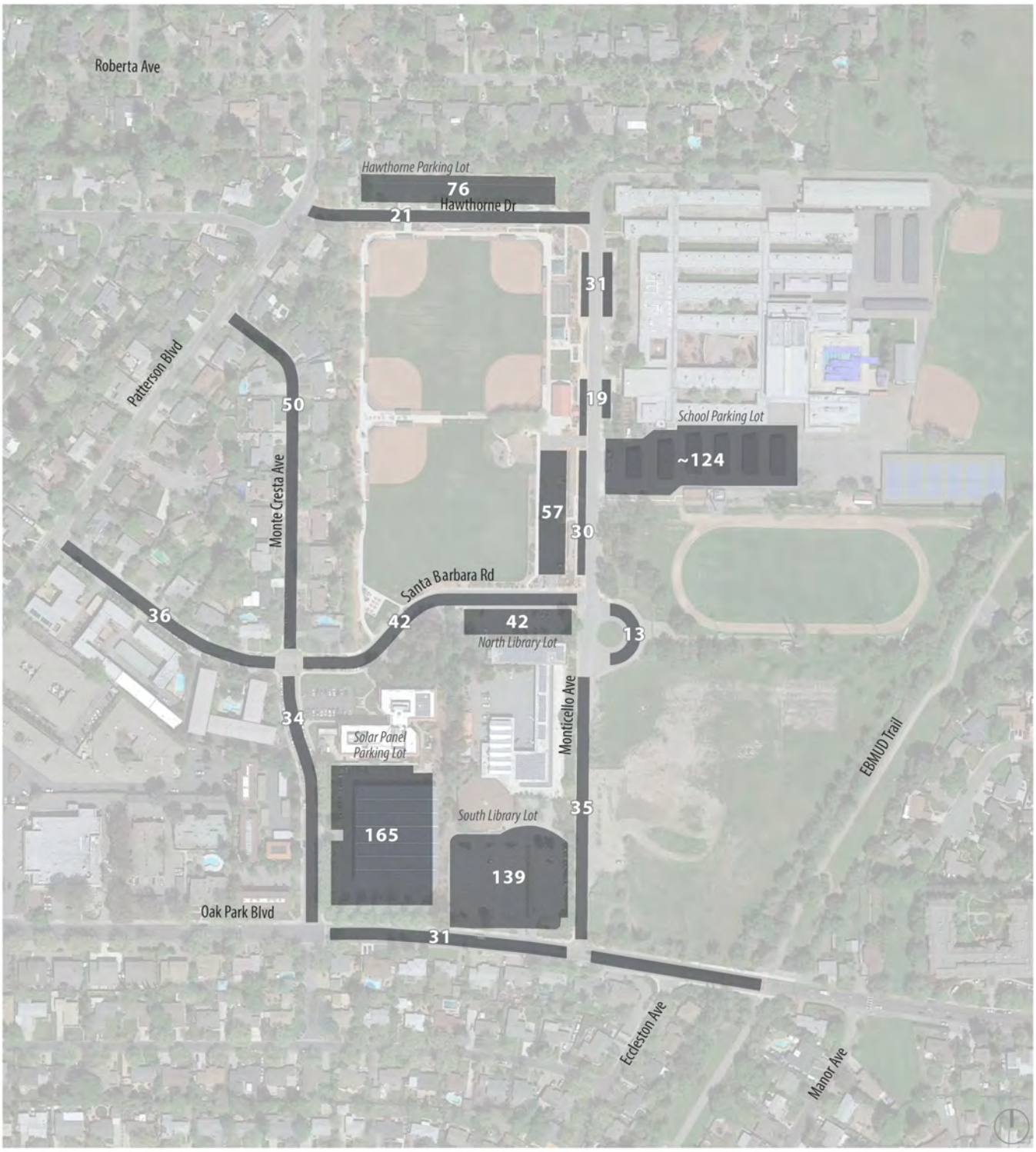
Federal

No federal plans, policies, regulations, or laws related to transportation and traffic are applicable.

State

California Department of Transportation LOS Goals

Caltrans builds, operates, and maintains the State highway system, including the interstate highway system. Caltrans's mission is to improve mobility Statewide. The department operates under strategic goals to provide a safe transportation system, optimize throughput and ensure reliable travel times, improve the delivery of State highway projects, provide transportation choices, and improve and enhance the State's investments and resources. Caltrans controls the planning of the State highway system and accessibility to the system. Caltrans establishes LOS goals for highways and works with local and regional agencies to assess impacts and develop funding sources for improvements to the State highway system. Caltrans requires encroachment permits from agencies or new development before any construction work may be undertaken within the State's right-of-way. For projects that would impact traffic flow and levels of services on State highways, Caltrans would review measures to mitigate the traffic impacts.



Source: FEHR + PEERS, April 2019.

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Exhibit 3.14-7
Parking Survey Locations

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Source: FEHR + PEERS, April 2019.

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Exhibit 3.14-8
Weekday Parking Occupancy

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Source: FEHR + PEERS, April 2019.

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Exhibit 3.14-9
Saturday Parking Occupancy

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Senate Bill 743

In November 2017, the Governor's Office of Planning and Research (OPR) released a technical advisory containing recommendations regarding the assessment of VMT, proposed thresholds of significance, and potential mitigation measures for lead agencies to use while implementing the required changes contained in Senate Bill 743 (SB 743). Also in November 2017, OPR released the proposed text for Section 15064.3, "Determining the Significance of Transportation Impacts," which summarized the criteria for analyzing transportation impacts for land use projects and transportation projects and directs lead agencies to "choose the most appropriate methodology to evaluate a project's vehicle miles traveled, including whether to express the change in absolute terms, per capita, per household or in any other measure." The OPR recommends that for most instances a per service population threshold should be adopted and that a 15 percent reduction below that of existing development would be a reasonable threshold.

As noted in the OPR Guidelines, agencies are directed to choose metrics that are appropriate for their jurisdiction to evaluate the potential impacts of a project in terms of VMT. The current deadline for adopting policies to implement SB 743 is January 2020; the change to VMT is anticipated to be formally adopted as part of updates to the California Environmental Quality Act (CEQA) Guidelines in 2018. Neither the City of Pleasant Hill, the CCTA or Contra Costa County has established any standards or thresholds on VMT. However, in response to the final guidelines, a preliminary assessment of VMT generated by the proposed plan was prepared for informational purposes only. No determination on the significance of VMT impacts is made in this document since none is legally required.

Regional

Contra Costa Transportation Authority Central County Action Plan

The CCTA is a joint powers authority that handles short- and long-term regional transportation planning for Contra Costa County and its incorporated cities. It works with local, regional, State, and federal agencies to improve the County's streets, highways, bicycle, and pedestrian facilities, and it provides funding for improvement projects and transportation programs. It also serves as the Congestion Management Agency for Contra Costa County, and it manages the Contra Costa Connection public transit system.

Congestion Management Agencies, created through the passage of Proposition 111 by California voters in 1990, requires urban counties to designate a congestion management agency, whose primary responsibility is to coordinate transportation planning, funding and other activities in a congestion management program. The CCTA has developed a congestion management program that reflects existing travel patterns and utilizes traffic analysis zones to support a travel demand model. The CCTA developed the travel demand model to support local planning efforts by forecasting traffic growth trends in traffic analysis zones that consider approved and potential projects in the immediate area. CCTA implements the Central County Action Plan, which sets forth performance objectives for Routes of Regional Significance. I-680 is a designated Route of Regional Significance and is located approximately 0.3 mile to the east of the plan area. In addition, the following arterial Routes of Significance are located within 1 mile of the plan area: Contra Costa Boulevard (0.70 mile

north), Geary Road (0.60 mile south), North Main Street (0.40 mile east), Pleasant Hill Road (0.95 mile west), and Treat Boulevard (0.70 mile southeast).

Contra Costa Countywide Bicycle and Pedestrian Plan

To support and encourage walking and bicycling in Contra Costa, the CCTA, on July 18, 2018, adopted the 2018 Contra Costa Countywide Bicycle and Pedestrian Plan (CBPP).[3] The CCTA adopted its first CBPP in 2003 and updated it in 2009. The CBPP builds on and expands the goals, policies, and strategies of the CCTA's Countywide Transportation Plan. Both plans set goals for increasing walking and bicycling and identify actions the authority and its partners should take to achieve them. The 2018 CBPP notes that there is increased interest, and support for, walking and bicycling, and includes four new approaches to ensure the 2018 CBPP is reflective of county needs: (1) focus on the "interested but concerned," (2) level of traffic stress, (3) new standards and best practices, and (4) complete streets plans. In addition, the 2018 CBPP sets forth the following goals and objectives:

- **Goal 1**: Encourage more people to walk and bicycle.
- **Goal 2:** Increase safety and security for pedestrians and bicyclists.
- **Goal 3:** Create a safe, connected, and comfortable network of bikeways and walkways for all ages and abilities.
- **Goal 4:** Increase the livability and attractiveness of Contra Costa County's communities and districts.
- **Goal 5:** Equitably serve all of Contra Costa County's communities while ensuring that public investments are focused on projects with the greatest benefits.
- **Objective 1:** Increase the share of trips made by walking and bicycling in Contra Costa County.
- **Objective 2:** Reduce the rate of pedestrian and bicycle fatalities and injuries per capita.
- **Objective 3:** Increase the number of miles of low-stress bikeways in Contra Costa County.
- **Objective 4:** Increase the number of jurisdictions in Contra Costa County with bicycle, pedestrian, or active transportation plans.
- **Objective 5:** Integrate complete street principles and best practices into authority funding and design guidance.

Pleasant Hill 2003 General Plan

Circulation Element

The Pleasant Hill 2003 General Plan Circulation Element (updated April 2015) established the following goals and policies relevant to transportation:

Circulation Goals, Policies, and Programs

- **Goal 1:** Establish and maintain a safe and efficient multi-modal transportation system that emphasizes the use of existing arterial and collector roadways, paths, and bike lanes.
- **Policy 1A:** Maintain rights-of-way at current widths, except as necessary to relieve specific areas of congestion.
- **Program 1.1:** Identify specific roadway segments where right-of-way widening, narrowing, or extension may be appropriate or will likely be needed to improve safety.

[3] Contra Costa Transportation Authority (CCTA). Countywide Bicycle and Pedestrian Plan (CBPP). Website: http://keepcontracostamoving.net/.

- **Goal 2:** Encourage Design and Development of Complete Streets.
- **Policy 2A:** Develop a connected system of street, roads, and highways that provides continuous, safe and convenient multi-modal travel options for all types of users throughout the City.
- **Program 2.3:** When building new, or rehabilitating existing roadways, consider the following design elements:
  - Sidewalks and curbs as a standards design principle.
  - Bike lanes and/or shared lanes as a standard design principle.
  - Transit accessibility as a standard design principle.
  - Shade trees and planting strips as a standard design principle along roadways.
- **Program 2.4:** Review street reconstruction, development projects and utility projects to incorporate complete street features, including trails, bus stops, pedestrian and bicycle routes if feasible.
- **Goal 3:** Decrease traffic delays associated with specific streets and uses.
- **Policy 3A:** Consider right-of-way widening, signalization, turn and/or parking restrictions, additional turning lanes, and other mitigation measures near schools and other uses with congested conditions.
- **Goal 6:** Reduce congestion and vehicle trips through non-automobile transportation and public transit.
- **Policy 6A:** Encourage use of bus and rail service for local and regional travel.
- **Program 6.2:** Improve accessibility to transit.
- **Program 6.3:** Develop and incorporate transit serving facilities within public right-of-ways.
- **Program 6.4:** Provide adequate pedestrian, bicycle, and disabled access to and from transit stops.
- **Goal 7:** Ensure that streets are safe and bicycle-friendly.
- **Policy 7A:** Maintain and upgrade the City's bikeway system.
- **Program 7.2:** Install additional bike lanes, routes, trails and connections where feasible, including on and across major thoroughfares.
- **Policy 7.3:** Develop bicycle routes that provide connectivity between homes, job centers, schools and other frequently visited destinations.
- **Policy 7.5:** Develop bicycle facilities along bicycle routes that support frequency of use, including shelters, trees, bicycle parking, etc.
- **Goal 8:** Ensure that streets are safe and pedestrian-friendly.
- **Policy 8A:** Maintain and upgrade the City's pedestrian system by installing or upgrading sidewalks, warning devices, crosswalks, and other pedestrian aids where appropriate, including particular consideration for the needs of pedestrians with limited mobility and/or disabilities.
- **Goal 9:** Prioritize access and mobility for persons with disabilities.
- **Policy 9A:** Improve sidewalks to facilitate access by persons with disabilities.

City of Pleasant Hill 2011 Pedestrian and Bicycle Master Plan

This document has not been adopted by the City of Pleasant Hill, so this EIR instead includes the goals and objectives as set forth in the CBPP.

3.14.4 - Impacts and Mitigation Measures

Significance Criteria

According to the 2019 CEQA Guidelines Appendix G Environmental Checklist, to determine whether transportation and traffic impacts are significant environmental effects, the following questions are analyzed and evaluated. Would the proposed plan:

a) Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?

b) Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?

c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

d) Result in inadequate emergency access

Approach to Analysis

Analysis in this section is based on the TIA that is provided in Appendix J. To present a conservative estimate, this analysis assumes the Civic Project and the Residential Project would be operational at the same. The following is a summary of the analysis methodology.

Trip Generation

Trip generation was estimated using including rates from the Institute of Transportation Engineer's (ITE) Trip Generation Manual 10th Edition. The Trip Generation Manual is a standard reference used by jurisdictions throughout the country for the estimation of trip generation potential of proposed developments.

Study Area

Impacts to the study area roadway facilities associated with implementation of the proposed plan were identified by measuring the effect of traffic associated with the proposed plan during the weekday AM (7:00 a.m. to 9:00 a.m.) and PM (4:00 p.m. to 6:00 p.m.) peak periods, when commute traffic is typically the highest, and Saturday afternoon (1:00 p.m. to 3:00 p.m.), when the proposed plan is expected to generate the most vehicular traffic overall. The weekday mid-day (2:00 p.m.to 4:00 p.m.), when the adjacent middle school generate the most weekday vehicular traffic, was also evaluated for a select subset of study intersections closest to the plan area. The 15 study intersections were selected in consultation with City staff based on a review of the plan area location and the amount of traffic that could be added to the intersections in the vicinity.

Plan Area

The trip generation estimate for the proposed plan is shown in Table 3.14-7. As shown in Table 3.14-7, implementation of the proposed plan is expected to generate a net 950 new weekday daily trips and 2,420 Saturday trips, with 37 trips (9 in, 28 out) in the weekday AM peak-hour, 97 trips (53 in, and 44 out) in the weekday mid-day peak-hour, 125 trips (48 in, 77 out) in the weekday afternoon peak-hour, and 383 trips (189 in, and 194 out) during the Saturday peak-hour. The net new daily trips subtract out the trips to the existing library as shown in Table 3.14-7. Table 3.14-8 shows the

total trip generation for the Civic Project and the Residential Project as well as the percent of total trips each project represents.

Civic Project

The proposed new park could add an additional 190 new weekday daily trips and 1,260 trips on Saturday, with 4 trips (2 in, and 2 out) in the weekday AM peak-hour, 53 trips (25 in, and 28 out) in the weekday mid-day peak-hour, 50 trips (17 in, 33 out) in the weekday PM peak-hour, and 215 trips (103 in, 112 out) in the Saturday peak-hour.

The proposed new library could add an additional 310 new weekday daily trips and 740 Saturday trips, with no additional trips expected during the AM peak-hour or mid-day peak-hour, and 34 additional trips (5 in, 29 out) in the PM peak-hour, and 116 additional trips (59 in, 57 out) in the Saturday peak-hour. Although the proposed library would be smaller than the existing library, there could be increased demands for library services during some peak-hours. To present a conservative assessment, this increased demand is considered in the analysis.

Residential Project

The proposed new residences (located west of Monticello Avenue) would add an additional 390 new weekday daily trips, with 29 trips (7 in, and 22 out) in the AM peak-hour, 39 trips (25 in, and 14 out) in the mid-day peak-hour, 37 trips (23 in, and 14 out) in the PM peak-hour. The proposed accessory dwelling units as part of the residences would add an additional 60 new daily trips, with 4 trips (0 in, 4 out) in the AM peak-hour, 5 trips (3 in, 2 out) in the weekday mid-day peak-hour, and 4 trips (3 in, 1 out) in the weekday PM peak-hour.

Table 3.14-7: Proposed Plan Trip Generation

Use	Size	Week-day Daily (Sat.)	Weekday AM Peak-hour			Weekday Mid-day Peak-hour[1]			Weekday PM Peak-hour			Saturday Peak-hour[1]		
			In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total
Single Family Detached Housing[2] (1750 Oak Park Property)	34 dwelling units	390 (360)	7	22	29	25	14	39	23	14	37	25	22	47
Accessory Dwelling Units[3] (1750 Oak Park Property)	7 dwelling units	60 (60)	0	4	4	3	2	5	3	1	4	2	3	5
Sport Park[4] (1700 Oak Park Property—Northern Portion)	2 fields	190 (1,260)	2	2	4	25	28	53	17	33	50	103	112	215
Existing Library to be Removed[5] (1750 Oak Park Property)	40,000 square feet	-1,500 -(1,270)	-24	-21	-45	-154	-167	-321	-93	-77	-170	-107	-92	-199
New Library[6] (1700 Oak Park Property—Southern Portion)	25,000 square feet[7]	1,810 (2,010)	24	21	45	154	167	321	98	106	204	166	149	315
Plan Trip Generation:		**950 (2,420)**	9	28	37	53	44	97	48	77	125	189	194	383

Notes:

[1] Weekday mid-day peak-hour trip generation based on the PM peak-hour of the generator rate which, which may not coincide with the afternoon peak-hour in the study area, but presents a conservative assessment of effects of the proposed plan.

[2] ITE land use category 210—Single-Family Detached Housing:
Weekday Daily: Ln (T) = 0.92 Ln (X) +2.71
Weekday AM Peak-hour: T = 0.71 (X) +4.80; Enter = 25 percent; Exit = 75 percent
Weekday Mid-day Peak-hour (PM Peak-hour of the Generator): Ln (T) = 0.94 Ln (X) +0.34 Enter = 63 percent; Exit = 37 percent
Weekday PM Peak-hour: Ln (T) = 0.96 Ln (X) +0.20; Enter = 63 percent; Exit = 37 percent
Saturday Daily: Ln (T) = 0.94 Ln (X) +2.56
Saturday Peak-hour: 0.84 (X) + 17.99; Enter = 54 percent; Exit 46 percent

[3] ITE land use category 220—Multi-Family Housing:
Weekday Daily: T = 7.32 (X)
Weekday AM Peak-hour: T = 0.46 (X); Enter = 23 percent; Exit = 77 percent
Weekday Mid-day Peak-hour (PM Peak-hour of the Generator): T = 0.67 (X); Enter = 59 percent; Exit = 41 percent
Weekday PM Peak-hour: T = 0.56 (X); Enter = 63 percent; Exit = 37 percent
Saturday Daily: T = 8.14.14 (X)
Saturday Peak-hour: T = 0.70 (X); Enter = 54 percent; Exit 46 percent

[4] ITE land use category 488—Soccer Complex: (max rate)
Weekday Daily: T = 90.81 (X)

Table 3.14-7 (cont.): Proposed Plan Trip Generation

Use	Size	Week-day Daily (Sat.)	Weekday AM Peak-hour			Weekday Mid-day Peak-hour[1]			Weekday PM Peak-hour			Saturday Peak-hour[1]		
			In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total
Weekday AM Peak-hour: T = 1.88 (X); Enter = 61 percent; Exit = 39 percent Weekday Mid-day Peak-hour (PM Peak-hour of the Generator): T = 26.50 (X); Enter = 47 percent; Exit = 53 percent Weekday PM Peak-hour: T = 24.88 (X); Enter = 66 percent; Exit = 34 percent Saturday Daily: T = 628.44 (X) Saturday Peak-hour: T = 107.4 (X); Enter = 48 percent; Exit 52 percent [5] Driveway counts collected in May 2018 for peak-hour's ratio of daily to peak-hour was used in conjunction with ITE rates for libraries to estimate daily trip generation. [6] ITE land use category 590—Library: Weekday Daily: T = 72.05 (X) Weekday AM Peak-hour: As ITE trip rates yielded lower estimate, existing observed trip generation was used Weekday Mid-day Peak-hour: As ITE trip rates yielded lower estimate, existing observed trip generation was used Weekday PM Peak-hour: T = 8.16 (X); Enter = 48 percent; Exit = 52 percent Saturday Daily: T = 80.09 (X) Saturday Peak-hour: T = 12.6 (X); Enter = 52 percent; Exit 48 percent [7] The library, as currently proposed, is approximately 24,000 square feet. Source: Trip Generation Manual (10th Edition), ITE; Fehr & Peers 2019.													

Table 3.14-8: Proposed Plan Trip Generation by Project

Use	Weekday Daily	Total Weekday (Daily x 5)	Saturday	Total Weekend (Saturday x 2, excluding the proposed library)	Total Weekly Traffic	Weekday PM (percent of total)	Percent of Total
Sport Park	190	950	1,260	2,520	3,470	50 (40%)	**39%**
Library (assumed closed Sunday)	310	1,550	740	740	2,290	34 (27%)	**26%**
Civic Project Total	**500**	**2,500**	**2,000**	**3,260**	**5,760**	**84 (67%)**	**65%**
Residential Project (Single Family Residential Units and ADUs)	**450**	**2,250**	**420**	**840**	**3,090**	**41 (33%)**	**35%**
Proposal Plan Total	**950**	**4,750**	**2,420**	**4,100**	**8,850**	**125 (100%)**	**100%**
Source: Fehr and Peers 2019.							

Trip Distribution

Trip distribution refers to the direction that trips would use to approach and depart the plan area. The proposed plan's general trip distribution accounts for existing traffic patterns, the identified changes in the orientation of the street network and traffic volumes estimates, and the general location of key trip generators and attractors in the area in determining trip distribution assumptions. Plan trips were distributed on the roadway network based on the general directions of approach and departure shown on Exhibit 3.14-10.

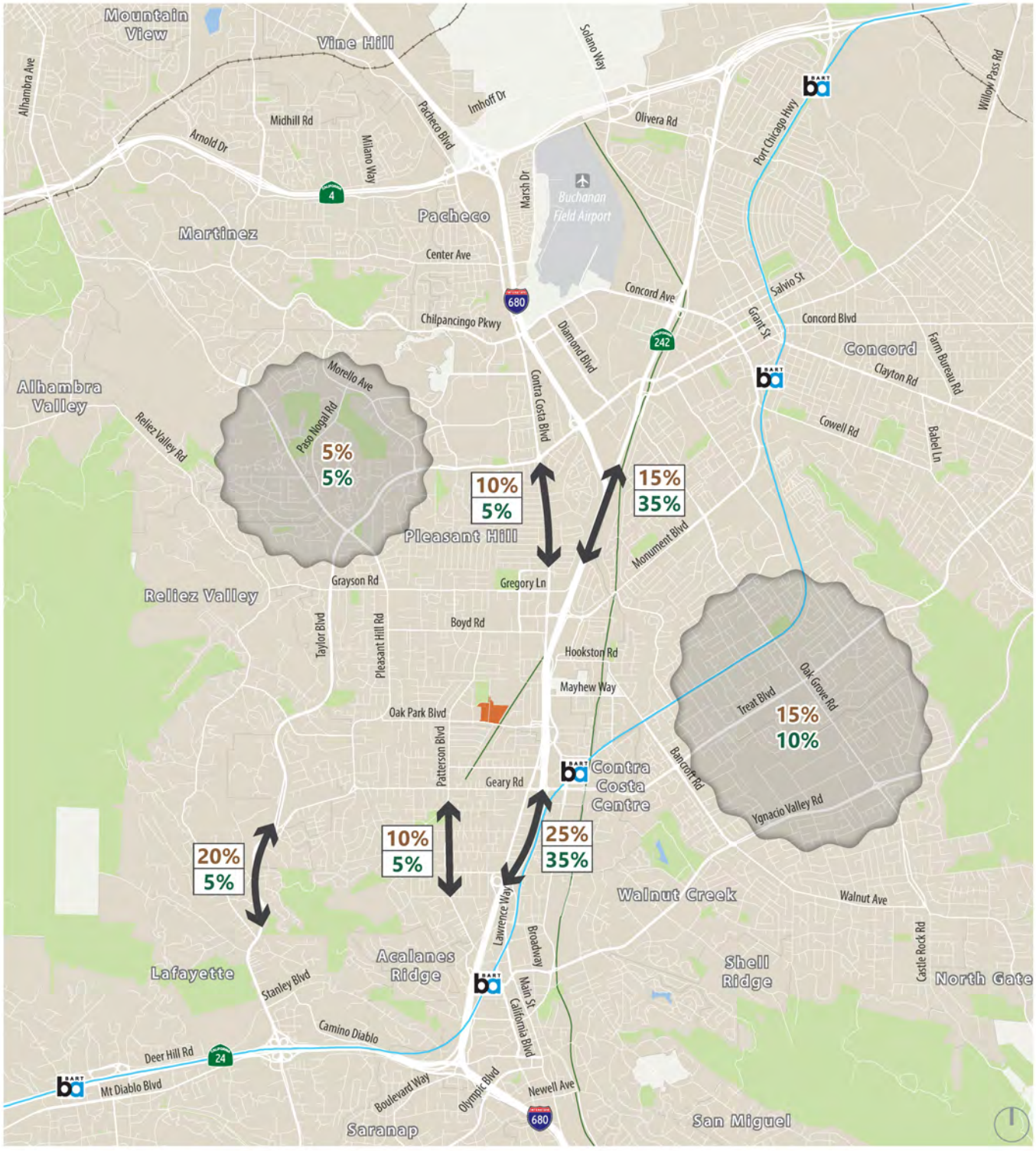
Trip Assignment

Trip assignment refers to how trips are assigned to specific roadway segments and intersection turning movements. Based on the proposed plan trip distribution and trip generation volumes, AM and PM trips were assigned through the study intersections. The proposed plan trip assignment at the study intersections is shown on Exhibit 3.14-11.

Peak-hour Signal Warrants

Peak-hour traffic signal warrants were reviewed at the unsignalized study intersections. Peak-hour warrants[4] are not met at any of the unsignalized study intersection based on existing traffic volumes.

[4] Unsignalized intersection warrant analysis is intended to examine the general correlation between existing conditions and the need to install new traffic signals. Existing peak-hour volumes are compared against a subset of the standard traffic signal warrants recommended in the Manual on Uniform Traffic Control Devices and associated State guidelines. This analysis should not serve as the only basis for deciding whether and when to install a signal. To reach such a decision, the full set of warrants should be investigated based on field-measured traffic data and a thorough study of traffic and roadway conditions by an experienced engineer. Furthermore, the decision to install a signal should not be based solely on the warrants because the installation of signals can lead to certain types of collisions. The responsible State or local agency should undertake regular monitoring of actual traffic conditions and accident data and conduct a timely re-evaluation of the full set of warrants in order to prioritize and program intersections for signalization.



Source: FEHR + PEERS, April 2019.

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Exhibit 3.14-10
Proposed Plan Trip Distribution

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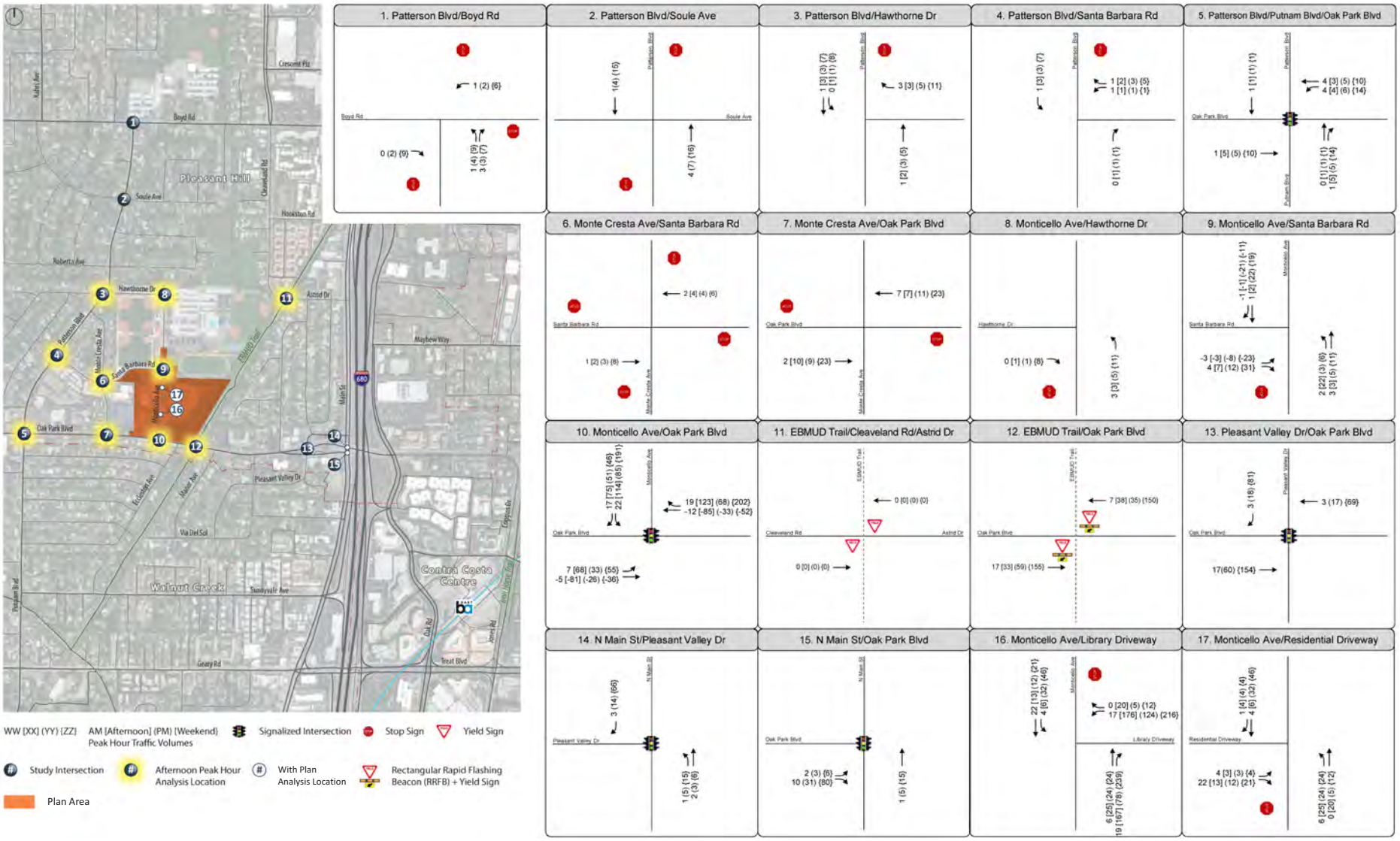

Source: FEHR + PEERS, April 2019.

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Exhibit 3.14-11
Proposed Plan Trip Assignment

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Analysis Scenarios

Operation of the transportation network was evaluated under the following scenarios:

- **Existing Conditions (see Table 3.14.-3 [LOS] and Table 3.14-4 [queuing])—**this scenario presents an evaluation of current operation based on existing traffic volumes during the weekday AM and PM peak periods and Saturday peak-hour, which capture traffic conditions during peak morning and evening commute hours. This condition does not include proposed plan generated traffic volumes.
- **Existing Plus Plan Conditions (see Table 3.14.-10 [LOS] and Table 3.14-11 [queuing])—**this scenario presents the addition of plan-only traffic volumes to the existing peak-hour traffic volumes.
- **Cumulative Year (2040 Conditions (see Table 3.14.-13 [LOS] and Table 3.14-14 [queuing])—** this scenario presents traffic conditions by the year 2040 using traffic growth trends as described in the Pleasant Hill General Plan supplemented by a check of traffic forecasts for the study area in the CCTA Countywide Travel Demand Model, as well as considering approved and potential projects in the immediate study area.
- **Cumulative Year (2040 Plus Plan Conditions (see Table 3.14-13 [LOS] and Table 3.14-14 [queuing])—**this scenario presents the Cumulative Conditions scenario described above plus the addition of proposed plan generated traffic volumes.

Level of Service Analysis

Signalized Intersections

Operations of signalized intersections were evaluated using the method from Transportation Research Board's 2010 Highway Capacity Manual,[5] which uses various intersection characteristics (such as traffic volumes, lane geometry, and signal phasing) to estimate the average control delay experienced by motorists traveling through an intersection. Control delay incorporates delay associated with deceleration, acceleration, stopping, and moving up in the queue.

Unsignalized Intersections

Operations at unsignalized intersections were evaluated using the method from the HCM 2010. With this method, operations are defined by the average control delay per vehicle (measured in seconds) for each movement that must yield the right-of-way. At two-way or side street-controlled intersections, the control delay (and LOS) is calculated for each controlled movement, the left-turn movement from the major street, and the entire intersection. For controlled approaches composed of a single lane, the control delay is computed as the average of all movements in that lane.

Queuing Analysis

Vehicle queues were assessed with the addition of traffic volumes generated by the proposed plan. Queuing analysis was conducted for each left and right turn pocket at the signalized intersections in the study area. An estimated 95th percentile queue was estimated for peak-hour traffic for all analysis scenarios.

[5] Transportation Research Board. 2010. 2010 Highway Capacity Manual.

Vehicle Miles Traveled

In response to SB 743, the OPR is updating the CEQA Guidelines to include new transportation-related evaluation metrics. New guidelines are undergoing a formal rule-making process; full compliance with the guidelines is expected by July 2020. In response to the final guidelines, a preliminary assessment of VMT generated by the proposed plan was prepared for informational purposes only, since there are currently no City thresholds related to VMT.

Specific Thresholds of Significance

The City has established standards in the form of City guidance contained in the Pleasant Hill 2003 General Plan regarding traffic circulation, bicycle and pedestrian circulation, and transit service. For purposes of this analysis, the following thresholds are used to evaluate the significance of transportation and traffic impacts resulting from implementation of the proposed plan.

Roadway Facilities

Level of Service

- Deterioration of peak-hour operations at a signalized intersection from acceptable to unacceptable operations.
- At an intersection projected to operate at a deficient service level prior to the addition of proposed plan traffic, the proposed plan increases delay by more than 5-seconds.
- Deterioration of peak-hour operations at a controlled movement at an un-signalized intersection from LOS E or better to LOS F, or at intersections where a controlled movement already operates at LOS F, one of the following:
  - Traffic associated with the proposed plan results in satisfaction at the peak-hour volume traffic signal warrant; or
  - Traffic associated with the proposed plan increases minor movement delay by more than 30 seconds; or
  - Where the peak-hour volume signal warrant is met without traffic associated with the proposed plan and delay cannot be measured, the proposed plan increases traffic by 10 or more vehicles per lane on the controlled approach.

Queuing

- The addition of traffic associated with the proposed plan at a study intersection would result in the 95th percentile vehicle queue exceeding the available storage or would increase 95th percentile queue by more than two vehicles where the queue already exceeds the available storage space (for example, vehicle queues extending beyond the available turn pocket length, impeding travel in the adjacent lanes).

The City's goal is to maintain LOS D during peak-hours; however, signalized intersections located along the CCTA Congestion Management Plan network may operate at LOS E (i.e. intersections 14 and 15).

Transit Facilities

Generally, a project causes a significant impact to transit facilities and services if an element of it conflicts with existing or planned transit services. The evaluation of transit facilities shall consider if:

- A project creates demand for public transit services above the capacity which is provided, or planned;
- A project or project-related mitigation disrupts existing transit services or facilities;
- A project or project-related mitigation conflicts with an existing or planned transit facility; or
- A project or project-related mitigation conflicts with transit policies adopted by the City of Pleasant Hill, CCTA, or County Connection for their respective facilities in the study area.

Bicycle and Pedestrian Facilities

The Pleasant Hill 2003 General Plan describes the related policies necessary to ensure that pedestrian and bicycle facilities are safe and effective for City residents. Using these plans as a guide, significant impacts to these facilities would occur when a project or an element of the project:

- Creates a hazardous condition that currently does not exist for pedestrians and bicyclists, or otherwise interferes with pedestrian accessibility to the site and adjoining areas; or
- Conflicts with an existing or planned pedestrian or bicycle facility; or
- Conflicts with policies related to bicycle and pedestrian activity adopted by the City of Pleasant Hill.

Vehicles Miles Traveled

According to the Updated to CEQA Thresholds of Significance and Transportation Impact Study Guidelines dated December 28, 2018, VMT impacts could have a significant effect on the environment if a project would:

- Cause additional VMT per capita, per service population, or other appropriate efficiency measure;
- Substantially induce additional automobile travel by increasing physical roadway capacity in congested areas (i.e., by adding new mixed-flow lanes) or by adding new roadways to the network; or
- Conflict with a plan, ordinance, or policy addressing the safety or performance of the circulation system, including transit, roadways, bicycle lanes, and pedestrian paths (except for automobile level of service or other measures of vehicle delay).

However, CEQA Guidelines Section 15064.3 states that the amendments do not take effect until July 1, 2020, unless the lead agency adopts them earlier. Neither the City of Pleasant Hill, the CCTA, or Contra Costa County have adopted VMT thresholds. Accordingly, this analysis has been prepared for informational purposes only.

Design Feature Hazards

The Circulation Element of the Pleasant Hill 2003 General Plan (updated in April 2015) nor the City of Pleasant Hill Municipal Code includes significance thresholds related to design features.

Emergency Access

The Circulation Element of the Pleasant Hill 2003 General Plan (updated in April 2015) does not provide significance thresholds for emergency access. The Pleasant Hill Municipal Code, Chapter 14.05, adopts the 2016 California Fire Code and amends the code to address local conditions. Therefore, this EIR will evaluate the proposed plan using the significance threshold provided by the 2016 California Fire Code as follows:

- Multiple-family Residential Projects having more than 100 dwelling units should provide two separated and approved fire apparatus access roads.
- Development of one or two-family dwellings where the number of dwelling units exceed 30 units shall be provided with two separate and approved fire apparatus access roads.
- Provide a fire apparatus access road that has a minimum width of 20 feet with turning radii of 25 feet inside and 45 feet outside.

Impact Evaluation

Affect to Circulation System

Impact TRANS-1: **The proposed plan could conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities.**

Construction of the Residential Project

Roadway Facilities

Construction activities related to the Residential Project could create potential conflicts with other roadway users, such as construction related activities resulting in lane closures along the frontage of the plan area, construction vehicles queuing within the public right-of-way waiting entry to the site, construction worker parking in non-designated parking areas, or construction debris on public streets. Construction impacts would be temporary in nature; however, this impact is considered potentially significant.

The TIA assessment of construction activity considers construction vehicles (including vehicles removing or delivering fill material, bulldozers, and other heavy machinery, as well as building materials delivery) and construction worker activity.

Although the Residential Project does not anticipate the need to close Monticello Avenue during construction, the TIA included an analysis of the effects of temporarily closing Monticello Avenue during the school year, under two scenarios. The first scenario is with Monticello Avenue closed, which assumes that traffic that currently uses Monticello Avenue to get to Pleasant Hill Middle School would use Monte Cresta Avenue. The other scenario assumes that Monticello Avenue would remain open for inbound trips, with outbound trips routed to Monte Cresta Avenue. The results of this analysis are presented in Table 3.14-9.

Table 3.14-9: Existing Plus Plan Construction Conditions—AM Peak-hour Intersection Levels of Service

Intersection	Control[1]	Existing Conditions		Existing Plus Construction Conditions Routing 1			Existing Plus Construction Conditions Routing 2		
		Delay[2,3]	LOS	Delay[2]	LOS	Signal Warrant Met?	Delay[2]	LOS	Signal Warrant Met?
Monte Cresta Avenue and Oak Park Boulevard	SSSC	3 (30)	A (D)	**142 (>180)**	**F (F)**	**Yes**	143 **(>180)**	**F (F)**	**Yes**

Notes:
Bold indicates operations below the local LOS standard for acceptable operations (below LOS D)
[1] SSSC = Side-street Stop Controlled
[2] Delay presented in seconds
Source: Fehr & Peers 2018.

As shown in Table 3.14-9, closure of all or a portion of Monticello Avenue during construction would result in deficient overall service levels at the Monte Cresta Avenue at Oak Park Boulevard intersection. This represents a potentially significant impact.

As a result, Mitigation Measure (MM) TRANS-1a would require a construction management plan that includes a series of measures to address the temporary effects associated with construction, and which would reduce construction impacts to an acceptable level. Therefore, construction impacts related to circulation system performance in terms of roadway facilities would be less than significant with mitigation.

Transit Facilities

Construction of the Residential Project would not result in a significant impact to any transit facilities. As seen in Exhibit 3.14-5, Bus Route No. 9 is the closest transit facility that passes through Oak Park Boulevard, which would remain open throughout the construction period. Therefore, construction impacts related to circulation system performance in terms of transit facilities would be less than significant.

Bicycle Facilities

Construction of the Residential Project would not result in a significant impact to bicycle facilities. Although a portion of Monticello Avenue would be closed during construction, no designated bicycle route traverses this roadway segment. Therefore, construction impacts related to circulation system performance in terms of bicycle facilities would be less than significant.

Pedestrian Facilities

Construction of the Residential Project would not result in any closures of sidewalks along Monticello Avenue and Oak Park Boulevard.

Construction of the Civic Project

Construction activities related to the Civic Project are the same as described above for the Residential Project, with the added effect of operation of a temporary library location, which could result in parking shortages at the existing senior center. As noted above, construction impacts would be temporary in nature; however, this impact is considered potentially significant.

The Civic Project would require closure of the Monticello Avenue sidewalk during construction. This represents a potentially significant impact. However, implementation of MM TRANS-1a would require that a pedestrian connection between Santa Barbara Road and Oak Park Boulevard is maintained or a pedestrian detour is provided. Therefore, construction impacts related to circulation system performance in terms of pedestrian facilities would be less than significant with mitigation.

The Pleasant Hill Senior Center typically has scheduled activities from 8:00 a.m. to 9:00 a.m. most days, with some later evening activities on Fridays. Activities on Saturday and Sunday are minimal. Parking for the Senior Center is shared with the Pleasant Hill Park, with a supply of approximately 140 shared spaces. Additional parking is available on the east side of Pleasant Hill Park, at the Teen Center, as well as on Cleaveland Road and Gregory Lane.

It is expected that, during construction of the new library, parking demand at the Pleasant Hill Senior Center and Teen Center for temporary library activities would be less than the parking demand at the existing library. However, the addition of additional cars seeking parking at these locations could result in some parking shortages in the Senior Center and Teen Center parking lots, which is considered potentially significant.

However, as described in MM TRANS-1a, if a potential parking shortage is identified at the senior and teen centers when temporary library uses occupy both sites, a parking management plan to better accommodate temporary library uses would be developed. The proposed plan could include adjusting library hours, adjusting Senior Center activities, or directing residents of Pleasant Hill to utilize other nearby libraries.

No construction impact determination is made with regard to parking, given that parking is not included as an environmental issue under CEQA. This analysis has been provided for informational purposes.

Operation

Roadway Facilities

Civic Project and Residential Project

Intersection Levels of Service

Traffic volumes under Existing Plus Plan Conditions were estimated by adding the plan traffic to existing traffic volumes. Exhibit 3.14-12 displays the Existing with Plan peak-hour volumes. Table 3.14-10 displays the LOS analysis results for the study intersections under Existing Plus Plan Conditions.

Table 3.14-10: Existing Plus Plan Operational Conditions—Peak-hour Intersection Levels of Service

	Intersection	Control[1]	Peak-hour	Existing Conditions		Existing Plus Plan Conditions		
				Delay[2,3,4]	LOS	Delay[2,3,4]	LOS	Signal Warrant Met?
1	Patterson Boulevard and Boyd Road	AWSC	AM	12	B	12	B	—
			PM	12	B	12	B	—
			SA	11	B	12	B	—
2	Patterson Boulevard and Soule Avenue	SSSC	AM	5 (39)	A (E)	5 (40)	A (E)	No
			PM	1 (15)	A (B)	1 (15)	A (B)	—
			SA	1 (12)	A (B)	1 (12)	A (B)	—
3	Patterson Boulevard and Hawthorne Drive	SSSC	AM	9 (38)	A (E)	10 (39)	B (E)	No
			MD	3 (14)	A (B)	3 (15)	A (B)	—
			PM	1 (11)	A (B)	1 (11)	A (B)	—
			SA	2 (10)	A (A)	2 (10)	A (A)	
4	Patterson Boulevard and Santa Barbara Road	SSSC	AM	2 (14)	A (B)	2 (14)	A (B)	—
			MD	2 (11)	A (B)	2 (12)	A (B)	—
			PM	1 (12)	A (B)	1 (12)	A (B)	—
			SA	1 (11)	A (B)	1 (11)	A (B)	—
5	Putnam Boulevard/Patterson Boulevard and Oak Park Boulevard	Signalized	AM	41	D	42	D	—
			MD	19	B	20	B	—
			PM	21	C	22	C	—
			SA	14	B	15	B	—
6	Monte Cresta Avenue and Santa Barbara Road	AWSC	AM	8	A	8	A	—
			MD	9	A	9	A	—
			PM	7	A	7	A	—
			SA	7	A	7	A	—
7	Monte Cresta Avenue and Oak Park Boulevard	SSSC	AM	3 (30)	A (D)	3 (31)	A (D)	—
			MD	3 (39)	A (E)	4 (41)	A (E)	No
			PM	2 (38)	A (E)	2 (39)	A (E)	No
			SA	1 (17)	A (C)	1 (18)	A (C)	—
8	Monticello Avenue and Hawthorne Drive	SSSC	AM	10 (11)	A (B)	10 (11)	A (B)	—
			MD	7 (10)	A (A)	7 (11)	A (B)	—
			PM	7 (9)	A (A)	7 (9)	A (A)	—
			SA	8 (9)	A (A)	8 (9)	A (A)	—
9	Monticello Avenue and Santa Barbara Road	SSSC	AM	2 (17)	A (C)	3 (20)	A (C)	—
			MD	3 (16)	A (C)	6 (19)	A (C)	—
			PM	3 (11)	A (B)	4 (11)	A (B)	—
			SA	4 (10)	A (A)	5 (11)	A (B)	—
10	Oak Park Boulevard and Monticello Avenue	Signalized	AM	7	A	9	A	—
			MD	6	A	12	B	—
			PM	3	A	7	A	—
			SA	4	A	12	B	—

Table 3.14-10 (cont.): Existing Plus Plan Operational Conditions—Peak-hour Intersection Levels of Service

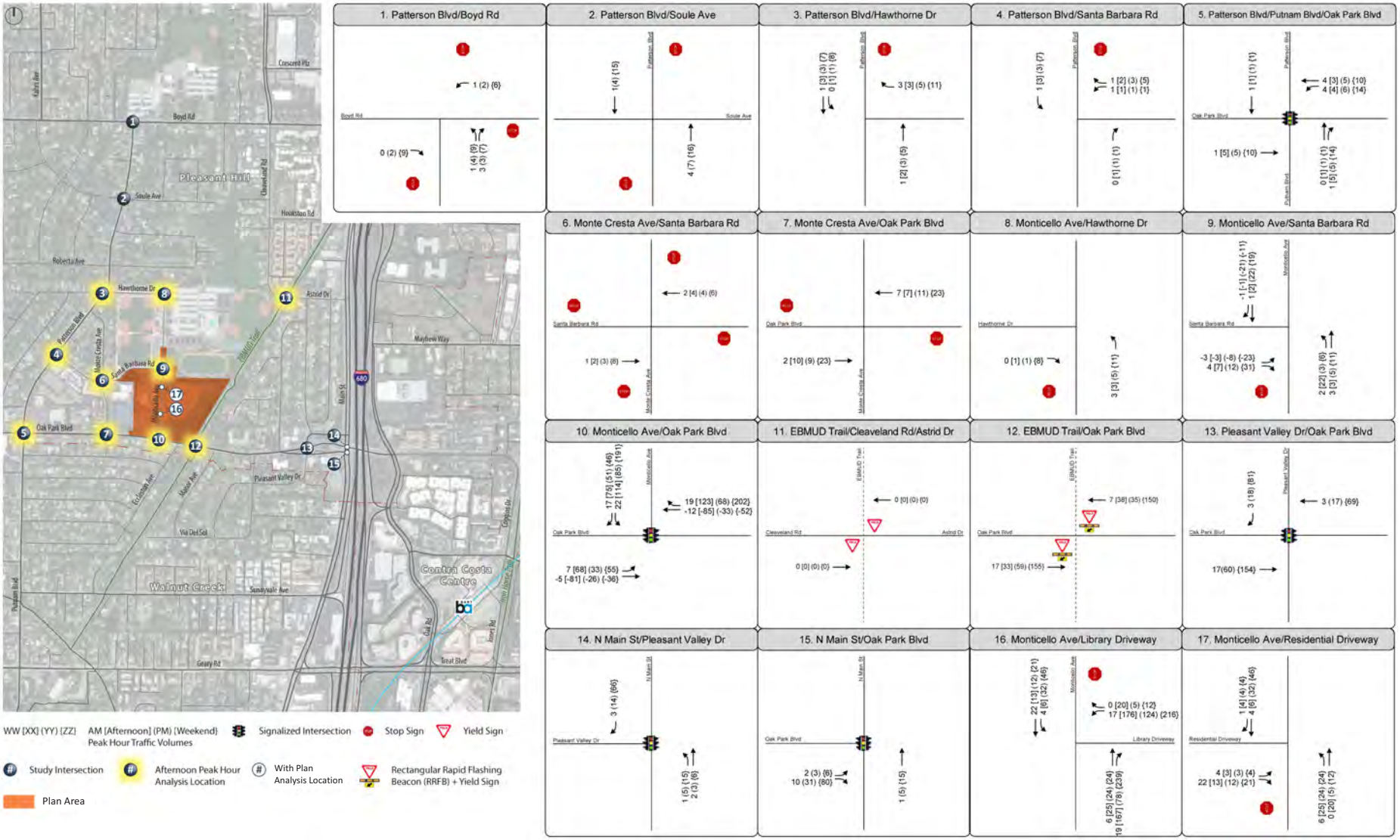
	Intersection	Control[1]	Peak-hour	Existing Conditions		Existing Plus Plan Conditions		
				Delay[2,3,4]	LOS	Delay[2,3,4]	LOS	Signal Warrant Met?
13	Pleasant Valley Drive and Oak Park Boulevard[2]	Signalized	AM PM SA	11 10 13	B A B	11 10 9	B A A	— — —
14	North Main Street and Pleasant Valley Drive[2]	Signalized	AM PM SA	15 11 11	B B B	18 11 13	B B B	— — —
15	North Main Street and Oak Park Boulevard[2]	Signalized	AM PM SA	7 10 9	A A A	7 10 11	A B B	— — —
16	Monticello Avenue and Library Driveway	SSSC	AM MD PM SA	— — —	— — —	0 (13) 4 (14) 5 (11) 6 (17)	A (B) A (B) A (B) A (C)	— — — —
17	Monticello Avenue and Residential Driveway	SSSC	AM MD PM SA	— — —	— — —	1 (11) 1 (10) 2 (7) 2 (9)	A (B) A (A) A (A) A (A)	— — — —

Notes:
Bold indicates operations below the local LOS standard for acceptable operations (below LOS D).
[1] AWSC = All-way Stop Controlled; SSSC = Side-street StopControlled
[2] Delay presented in seconds
[3] Intersections 13, 14, and 15 are evaluated using the HCM 2000 methodology.
[4] For side-street stop-controlled intersections, delay is presented for intersection average (worst movement).
Source: Fehr & Peers 2019.

As shown in Table 3.14-10, all study intersections under Existing Plus Plan Conditions would operate at acceptable LOS standards during both peak periods. However, under Existing Plus Plan conditions, traffic generated by the proposed plan would worsen side-street delay at three intersections that currently experience LOS E conditions:

- Patterson Boulevard at Soule Avenue
- Patterson Boulevard at Hawthorne Drive
- Monte Cresta Avenue at Oak Park Boulevard

Therefore, based on the significance criteria, this is not a significant impact, and operational impacts related to circulation system performance in terms of roadway facilities (specifically intersection LOS) would be less than significant.



Source: FEHR + PEERS, April 2019.

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Exhibit 3.14-12
Existing Plus Plan Peak Hour Volumes

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Vehicle Queues

Vehicle queues were assessed for the signalized intersections in the Existing Plus Plan Condition, and the addition of traffic associated with the proposed plan is not expected to cause vehicle queues to increase by more than 50-feet (or 2 car-lengths) for movements where the 95th percentile queue already exceeds the available storage or result in vehicle queues to exceed the available storage, as presented in Table 3.14-11. Queue worksheets are provided in Appendix J. Therefore, operational impacts related to circulation system performance in terms of roadway facilities (specifically vehicle queues) would be less than significant.

Table 3.14-11: Existing Plus Plan Conditions—95th Percentile Queue Summary at Signalized Intersections

Intersection	Movement	Storage Length (ft)[1]	AM Peak-hour		Mid-day Peak-hour		PM Peak-hour		Saturday Peak-hour	
			Without Plan	Plus Plan	Without Plan	Plus Plan	Without Plan	Plus Plan	Without Plan	Plus Plan
5: Putnam Boulevard/Patterson Boulevard, and Oak Park Boulevard	EBL	100	50	50	75	75	75	75	50	50
	WBL	110	**200**	**200**	**150**	**175**	**150**	**175**	100	100
	WBR	230	25	25	50	75	75	75	25	25
	NBL	100	**200**	**200**	**125**	**125**	**150**	**175**	50	75
	SBL	210	200	200	125	125	100	100	50	75
10: Oak Park Boulevard and Monticello Avenue	WBR	150	N/A	75	N/A	75	N/A	50	N/A	50
	SBL	700/300[2]	175	175	100	250	50	150	75	250
	EBL	150	N/A	25	N/A	50	N/A	25	N/A	50
13: Pleasant Valley Drive and Oak Park Boulevard	EBL	80	75	75	—	—	50	50	50	50
	WBL	80	25	25	—	—	25	25	50	50
	WBR	125	25	25	—	—	75	75	25	25
	NBR	25	0	0	—	—	0	0	0	0
	SBL	100	**175**	**175**	—	—	**125**	**125**	75	75
	SBR	100	50	50	—	—	50	50	50	50
14: North Main Street and Pleasant Valley Drive	EBL	400	75	75	—	—	150	150	75	75
	EBR	100	75	75	—	—	25	25	25	25
	NBL	125	75	75	—	—	125	125	75	100
15: North Main Street and Oak Park Boulevard	EBL	310	50	50	—	—	75	75	50	50
	EBR	310	75	100	—	—	75	75	100	150
	NBL	110	25	25	—	—	50	50	25	50

Table 3.14-11 (cont.): Existing Plus Plan Conditions—95th Percentile Queue Summary at Signalized Intersections

Intersection	Movement	Storage Length (ft)[1]	AM Peak-hour		Mid-day Peak-hour		PM Peak-hour		Saturday Peak-hour	
			Without Plan	Plus Plan	Without Plan	Plus Plan	Without Plan	Plus Plan	Without Plan	Plus Plan

Notes:
Bold indicates queue potentially extends beyond available storage.
Bold Italics indicates potentially significant impact.
— = intersection was not evaluated for this time period. N/A = turn lanes do not exist under this scenario.
[1] An additional 60 to 90 feet of storage is typically provided in the taper area outside of the through lane, which is not reflected in the storage length above.
[2] Reflects storage with the proposed plan.

Signal Warrants

Signal warrants were evaluated for the unsignalized intersections where the side-street movement operates at LOS E. As shown in Table 3.14-10 signalization of the unsignalized study intersections is not warranted with the addition of traffic associated with implementation of the proposed plan in the existing condition. Signal warrant worksheets are provided in Appendix J. Therefore, operational impacts related to circulation system performance in terms of roadway facilities (specifically signal warrants) would be less than significant.

Transit Facilities

Civic Project

A County Connection bus stop is located on the north side of Oak Park Boulevard, just west of the Monticello Avenue intersection. The TIA determined that relocating this bus stop closer to the library would place a bus stop within a right-turn lane, which would cause turning conflicts due to buses having to pull through a bicycle lane. In addition, the closest eastbound bus stop is approximately 500 feet west of the Monticello Avenue intersection on Oak Park Boulevard. In order for pedestrians to access this bus stop, pedestrians could either (1) cross Oak Park Boulevard at the signal at Monticello Avenue (there is not a complete sidewalk network on the south side of the Oak Park Boulevard in this area), or (2) walk along the north side of Oak Park Boulevard (where sidewalk facilities are provided) and cross Oak Park Boulevard at an uncontrolled high-visibility crosswalk. Design details for the Civic Project related to transit bus routes and associated moved stops are not yet available. This represents a potentially significant impact.

Implementation of MM TRANS-1b would require reconstruction of the westbound Bus Route No. 9 along Oak Park Boulevard in its same general existing configuration and ensure the associated pedestrian access is clear to these public transit facilities. Furthermore, new sidewalks and bicycle lanes would be provided that would connect bus stops to other forms multi-modal transportation. Therefore, transit facility impacts for the Civic Project would be less than significant with mitigation.

Residential Project

The proposed residences would be located in close proximity to two bus stops (County Connection Bus Route No. 9). Therefore, operational transit facility impacts associated with development of the Residential Project would be less than significant.

Bicycle Facilities

Civic Project—Proposed Library and Park

The closest bicycle facilities to the Civic Project are the EBMUD Trail, a Class 1 bike path that runs adjacent to the east boundary of the Civic Project site along Grayson Creek, and existing Class III bicycle lanes on Oak Park Boulevard. In addition, a potential future pedestrian bridge crossing that would connect the proposed pedestrian trail on the Civic Project site to the EBMUD trail may be included as part of the Civic Project, pending funding. As a result, the Civic Project would improve connections to existing bicycle paths. As a result, bicycle facilities impacts associated with the proposed library would be less than significant.

Civic Project—Monticello Avenue Improvements

Currently, the segment of Monticello Avenue within the plan area does not contain bike lanes. As part of the Civic Project, Class II Bicycle lanes would be constructed along Monticello Avenue, between Oak Park Boulevard and Santa Barbara Road. The Civic Project would include bicycle facilities upgrades and connections to bicycle paths. Therefore, bicycle facility impacts associated with the Monticello Avenue improvements would be less than significant.

Civic Project—Oak Park Boulevard Improvements

As part of the Civic Project, Oak Park Boulevard would be widened to provide a westbound right-turn only lane, a westbound left-turn only lane, and an eastbound left-turn only lane. Existing Class III bicycle lanes would remain on this segment of Oak Park Boulevard. The proposed construction of a right-turn pocket on Oak Park Boulevard at Monticello Avenue could create conflicts between right-turning vehicles and bicyclists, especially during the AM peak-hour when right-turn volumes are the highest, a potentially significant impact. Implementation of MM TRANS-1c would ensure that bicycle lanes and road transitions to and from Oak Park Boulevard to Monticello Avenue are provided in order to prevent conflicts. The Civic Project would enhance bicycle facilities and connections to bicycle paths. Therefore, bicycle facility impacts associated with the Oak Park Boulevard improvements would be less than significant with mitigation.

Residential Project

The nearest bicycle facilities to the Residential Project are the EBMUD Trail, a Class I bike path located 700 feet east of the Residential Project, and a Class III bike route along Oak Park Boulevard. The proposed residences would not remove existing bicycle infrastructure. Therefore, operational bicycle facility impacts associated with the Residential Project would be less than significant.

Pedestrian Facilities

Civic Project

The proposed park site currently does not contain pedestrian facilities, as it is a vacant lot. The Civic Project would result in improved pedestrian facilities, including an 8-foot wide sidewalk along Monticello Avenue between Oak Park Boulevard and Santa Barbara Road, construction of a proposed

pedestrian trail connecting the Civic Project to Oak Park Boulevard, and potential future construction of a bridge connecting that pedestrian trail to the EBMUD trail. The bridge may be constructed once funding is secured.

The Civic Project would also include new sidewalks and roadway improvements on Monticello Avenue between Oak Park Boulevard and Monticello Roundabout and on Oak Park Boulevard between Monte Cresta Avenue and the EBMUD Trail. Design details related to pedestrian crosswalks to and from these roadways are not yet available, but roadway features proposed as part of the Civic Project would be constructed to meet current City standards. The Civic Project could increase pedestrian activity in the area, including pedestrian activity generated by the residential development crossing Monticello Avenue to access the library or sports fields. This represents a potentially significant impact. However, implementation of MM TRANS-1d would require installation of mid-block high-visibility crosswalks along Monticello Avenue. Therefore, pedestrian facility impacts associated with the Civic Project would be less than significant with mitigation.

Residential Project

The TIA determined that a direct pedestrian connection from Oak Park Boulevard and Monticello Avenue to the proposed residences would be needed. MM TRANS-1d would ensure pedestrian connections are provided from the proposed residences to Oak Park Boulevard and Monticello Avenue. Therefore, operational impacts to pedestrian facilities associated with the Residential Project would be less than significant with mitigation.

Parking

Parking is not included as an environmental issue under CEQA. However, a parking supply analysis during operation is provided for informational purposes.

Off-street parking requirements and design guidance are outlined in the City of Pleasant Hill Municipal Code Chapter 18.55.30 and in the Development Standards of the Oak Park Properties Specific Plan. A combination of private garages and on-street parking would support the proposed Residential Project. Table 3.14-12 provides automobile parking requirements as well as the proposed supply.

Table 3.14-12: Automobile Parking Requirements and Proposed Supply

Land Use	Size	Base Requirement	Total Requirement or Demand	Supply
Residential Project				
Single-Family	34 units	2 enclosed spaces per unit Guest Parking (0.5 spaces per unit)	68 covered spaces	68 covered spaces 68 driveway spaces 17 on-street spaces
Accessory Dwelling Units	7 ADUs	0	0	0

Table 3.14-12 (cont.): Automobile Parking Requirements and Proposed Supply

Land Use	Size	Base Requirement	Total Requirement or Demand	Supply
Civic Project				
Library	25,000 square feet[6]	**Weekday:** 10 percent more than existing peak weekday demand of 70 spaces	77	N/A
		Weekend: 10 percent more than existing peak weekend demand of 55 spaces	61	
Parks and Recreation Facilities	2 fields	**Weekday:** 39.9 spaces per field	80	N/A
		Weekend: 36.3 spaces per field	73	
Combined Parking Demand for Library and Sports Fields	N/A	Peak weekday	157	165
		Peak Saturday	134	
Total Peak Non-Residential Demand		**157**		
Total Non-Residential Supply		**165**		
Surplus/(Deficit)		**7**		
Source: Pleasant Hill Municipal Code; Fehr & Peers 2018.				

Civic Project—Proposed Park

For the Civic Project, parking demand in the areas immediately adjacent to the existing sports fields, including on-street parking in the general vicinity was summed, and then divided by the number of sports fields in use at the time of data collection. On a weekday, peak parking demand on a tournament evening was 290 spaces—or 36.25 spaces per field that was in use. On a Saturday, the peak parking demand was 231, or 33 spaces per field that was in use. The resulting peak parking demand rate was then increased by 10 percent to account for vehicles that may have parked further away. The resulting peak weekday parking demand of 39.9 spaces per field peak and weekend parking demand rate of 36.3 spaces per field was established for the sports fields. Weekday parking demand could be higher than weekend parking demand (for example, on weeknights, one parent may arrive with the player, and other family members arrive in separate vehicles, while on Saturdays, families are more likely to drive together.) Based on the observed rates, the new sports fields could have a peak parking demand of 80 spaces on a weekday and 73 spaces on a weekend (157 peak weekday and 134 park Saturday when combined with the demand for the proposed library).

The combined number of spaces provided by the shared parking for the proposed library and proposed park would be 165 spaces (135 off-street parking spaces and 30 spaces would be provided north of the park). Therefore, the shared library and park parking would provide sufficient parking spaces to accommodate the peak park parking demands (157 spaces), as shown in Table 3.14-12.

[6] The proposed library would be approximately 23,900 square feet. To provide a conservative estimate, this EIR assumed that the library is 25,000 square feet.

In addition, the Civic Project sponsors would develop a shared parking agreement for the two parking lots. The TIA recommends conducting a parking demand assessment between 6 months and 1 year of full operation of the Civic Project to assess potential parking shortages. Should a potential parking shortage be identified at the shared parking lots, a parking management plan to better accommodate both uses would be developed. The City can include this recommendation as a condition of approval.

No operational impact determination is made with regard to parking for the proposed park, given that parking is not included as an environmental issue under CEQA. This analysis has been provided for informational purposes.

Civic Project—Proposed Library

For the proposed library, the City does not identify parking requirements. To determine if the proposed supply is sufficient for the proposed uses, a parking demand assessment was conducted based on the existing data collection effort (see Table 3.14-12), and published parking demand information. Peak observed parking demand at the existing library was approximately 70-spaces on a weekday afternoon. Peak parking demand on a Saturday was observed to be about 55 spaces. This results in a peak parking demand ratio of 1.75 spaces per 1,000 square feet for the existing library. However, as noted in the trip generation section, there is a large proportion of storage spaces within the existing spaces that would not exist at the proposed library. Additionally, the proposed library could have enhanced offerings that could attract additional patrons. For the purposes of this parking assessment, it was assumed that future library parking demand would be 10 percent greater than existing parking demand. The total weekday requirement would be 77 spaces and the total weekend requirement would be 61 spaces (157 peak weekday and 134 park Saturday when combined with the demand for the proposed library). The combined number of spaces provided by the shared parking for the proposed library and proposed park would be 165 spaces (135 off-street parking spaces and 30 spaces would be provided north of the park). Therefore, the shared library and park parking would provide sufficient parking spaces to accommodate the peak park parking demands for the Civic Project, as shown in Table 3.14-12.

In addition, the Civic Project sponsors would develop a shared parking agreement for the two parking lots. The TIA recommends conducting a parking demand assessment between 6 months and 1 year of full operation of the Civic Project to assess potential parking shortages. Should a potential parking shortage be identified at the shared parking lots, a parking management plan to better accommodate both uses would be developed. The City can include this recommendation as a condition of approval.

No operational impact determination is made with regard to parking for the proposed park, given that parking is not included as an environmental issue under CEQA. This analysis has been provided for informational purposes.

Residential Project

For the residential units, each home would have a private two-car garage as well as a driveway with space for additional vehicles; 17 on-street spaces would be provided. For residential uses, two-enclosed spaces per unit are required, which is satisfied by the proposed 2-car garages for each unit.

In addition, unenclosed parking is also provided for each home through driveway aprons that front each garage. For the ADUs, no parking spaces are required per the Municipal Code exception allowed because of the proximity of transit on Oak Park Boulevard. Therefore, the amount of parking that would be provided by the proposed residences would fulfill the Pleasant Hill Municipal Code Requirement as well as the requirements of the Oak Park Properties Specific Plan.

No operational impact determination is made with regard to parking for the proposed residences, given that parking is not included as an environmental issue under CEQA. This analysis has been provided for informational purposes.

Level of Significance Before Mitigation

Potentially Significant (Civic Project and Residential Project)

Mitigation Measures

MM TRANS-1a Prepare and Implement Construction Traffic Management Plan

Civic Project: Prior to issuance of grading permits, the contractor for the Civic Project shall prepare a Construction Traffic Management Plan that includes the following items. The approved plan shall be implemented during construction.

- Provide a temporary traffic signal at the Oak Park Boulevard at Monte Cresta Avenue intersection during the time periods when Monticello Avenue is closed between Oak Park Boulevard and Santa Barbara Road. Because the Civic Project would account for 65 percent of the total trips associated with proposed plan, the Civic Project sponsors are responsible for 65 percent of the cost of the temporary signal.
- Maintain a pedestrian connection between Santa Barbara Road and Oak Park Boulevard, to the greatest extent feasible. Should there be time periods when the provision of a pedestrian connection would affect worker or pedestrian safety, a pedestrian detour route shall be established with appropriate wayfinding, noticing, and potentially crossing guards during peak periods around school bell times.
- Monitor parking demand at the senior and teen centers when temporary library uses occupy both sites and should a potential parking shortage be identified, develop a parking management plan to better accommodate temporary library uses. The parking management plan could include adjusting library hours, adjusting Senior Center activities, or directing residents of Pleasant Hill to utilize other nearby libraries.
- Staging plan for the Civic Project that maximizes on-site storage of materials and equipment
- A set of comprehensive traffic control measures, including scheduling of major truck trips and deliveries to avoid peak-hours; lane closure proceedings; signs, cones, and other warning devices for drivers; and designation of construction access routes
- Permitted construction hours
- Location of construction staging

- Identification of parking areas for construction employees, site visitors, and inspectors, including on-site locations
- Provisions for street sweeping to remove construction related debris on public streets

Residential Project: Prior to issuance of grading permits, the contractor for the Residential Project shall prepare a Construction Traffic Management Plan that includes the following items. The approved Construction Traffic Management Plan shall be implemented during construction.

- Provide a temporary traffic signal at the Oak Park Boulevard at Monte Cresta Avenue intersection during the time periods when Monticello Avenue is closed between Oak Park Boulevard and Santa Barbara Road. Because the Residential Project would account for 35 percent of the total trips associated with proposed plan, the County is responsible for 35 percent of the cost of the temporary signal.
- Project Staging Plan to maximize on-site storage of materials and equipment
- A set of comprehensive traffic control measures, including scheduling of major truck trips and deliveries to avoid peak-hours; lane closure proceedings; signs, cones, and other warning devices for drivers; and designation of construction access routes
- Permitted construction hours
- Location of construction staging
- Identification of parking areas for construction employees, site visitors, and inspectors, including on-site locations
- Provisions for street sweeping to remove construction related debris on public streets

MM TRANS-1b Reconstruct Bus Route with Pedestrian Clear-way Along Oak Park Boulevard Prior to Construction

Civic Project: Prior to issuance of grading permits, the contractor for the Civic Project shall ensure the design of the Civic Project includes:

- Reconstruction of the westbound Bus Route No. 9 along Oak Park Boulevard in its same general area, with transit amenities similar to those provided today (bench).
- Maintenance of a 4-foot pedestrian clear-way through the transit stop-area when considering transit amenity placement.

MM TRANS-1c Prepare Bicycle Transitions

Civic Project: Prior to issuance of grading permits, the contractor for the Civic Project shall ensure the final design of Monticello Avenue at Oak Park Boulevard provides:

- Transitions to/from Oak Park Boulevard to Monticello Avenue for bicyclists.

MM TRANS-1d Install Mid-block High-visibility Pedestrian Crosswalks along Monticello Avenue and Oak Park Boulevard

Civic Project: Prior to issuance of grading permits, the contractor for the Civic Project shall ensure designs for the Civic Project include either:

- New or reconstructed curb-ramps and directional ramps where feasible or
- Mid-block high visibility pedestrian crosswalk on Monticello Avenue on the north side of the library driveways (i.e., install a Rectangular Rapid Flashing Beacon at the crosswalk).

Residential Project: Prior to issuance of grading permits, the contractor for the Residential Project shall provide project plans for review and approval that include either:

- New or reconstructed curb-ramps and directional ramps, where feasible; or
- Mid-block high visibility pedestrian crosswalk on Monticello Avenue on the north side of the library driveways (i.e., install a Rectangular Rapid Flashing Beacon at the crosswalk).

Level of Significance After Mitigation

Less Than Significant with Mitigation (Civic Project and Residential Project)

Vehicle Miles Traveled

Impact TRANS-2: Proposed plan consistency with CEQA Guidelines Section 15064.3 subdivision (b) cannot be determined given that the City has not established a threshold with regard to VMT impact significance.

Construction

Civic Project and Residential Project

No construction impact determination is made with regard to VMT, given that the City has not established a threshold with regard to VMT impact significance.

Operation

Civic Project and Residential Project

The implementation of the proposed plan would result in 16.6 vehicle miles of travel per day per household.[7] This was calculated using the CCTA model where all trips generated by the residential portion of the proposed plan were tracked through the transportation system. This includes all trips generated by each household that either start or end at home. This level of vehicle travel is higher than the Bay Area average, but lower than both the County average (lower by 7.7 percent) or City-wide average (lower by 5 percent).

As such, the implementation of the proposed plan would contribute to a decrease in vehicle miles of travel on a per-capita basis compared to existing conditions.

[7] Fehr & Peers. 2019. Oak Park/Monticello Mixed-Use Project Final Transportation Impact Analysis. April.

The OPR has established a threshold for residential uses that new developments that have a VMT of 15 percent below existing regional and City VMT per capita would be considered less than significant. The proposed plan's VMT per capita would be lower than the existing regional average (7.7 percent) and City average (5 percent) but would not meet the 15 percent reduction threshold. As such, potentially significant impacts could occur. The implementation of the proposed plan would not substantially induce additional automobile travel because it would not increase physical roadway capacity in already congested areas. Given that the City has not established a threshold with regard to VMT impact significance, no operational impact determination is made with regard to VMT. This analysis has been provided for informational purposes.

Level of Significance

None applicable (Civic Project and Residential Project)

Roadway Design Safety Hazards

Impact TRANS-3: The proposed plan would not substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).

Construction

Civic Project and Residential Project

Construction of the Civic Project and Residential Project is anticipated to utilize vacant areas within the plan area to accommodate storage of large construction vehicles. This staging area would reduce the amount of heavy construction vehicles using adjacent roads. During construction, truck deliveries would be expected to use collectors such as Oak Park Boulevard, and would avoid adding additional heavy duty truck traffic on feeder streets and local streets such as Monte Cresta Avenue and Santa Barbara Road. Furthermore, these truck routes are specifically designated to avoid impacts to pedestrian and bicyclists. Thus, because the construction trucks would travel along the designated truck routes, there would not be a conflict with the automobile vehicle, bicycle, and pedestrian design and activity along roadways on and near the plan area. Therefore, construction impacts related to roadway design safety hazards would be less than significant.

Operation

Civic Project

Primary vehicular access to the proposed park and proposed library would be provided by an existing signalized intersection on Oak Park Boulevard at Monticello Avenue that would be modified as part of the Civic Project to provide an eastbound left-turn only lane and a westbound right-turn only lane. A new entrance would be provided 300 feet north of Oak Park Boulevard to serve the proposed park, athletic fields, and library uses. This entrance and roadway would be in compliance with the City's Fire Code and other applicable regulations as they relate to roadway safety and would not present a safety hazard. As described previously, access from these intersections would operate at acceptable levels.

Improvements to Monticello Avenue would include reconstruction, restriping, and bike lanes. In addition, the intersection at Monticello Avenue and Oak Park Boulevard (southbound approach)

would be modified, with one dedicated northbound lane and dedicated southbound lane and modified signal timing. The southbound lane would terminate at Oak Park Boulevard with a shared left and right turn lane. These improvements would increase roadway safety by improving roadway surfaces and clearly marking vehicle and bike lanes.

Proposed roadway improvements to Oak Park Boulevard include roadway widening and construction, and signal modification. In addition, the existing Class III bike lanes would continue to share the roadway. This segment of the Oak Park Boulevard would be widened between the EBMUD trail right-of-way to the western plan area boundary. Further, lane realignment would ensure efficient traffic flow. These improvements would improve roadway safety.

Given entrance and roadways providing access to the Civic Project would be in compliance with the City's Fire Code and other applicable regulations, the main intersection used to access the Civic Project would operate at acceptable levels, and that roadway improvements would increase roadway safety, impacts associated with roadway design safety hazards at the Civic Project would be less than significant.

Residential Project

Primary vehicular access to the proposed residences would be provided by an existing signalized intersection on Oak Park Boulevard at Monticello Avenue. An entrance to the proposed residences would be provided approximately 500 feet north of the Oak Park Boulevard/Monticello Avenue intersection in compliance with the City's Fire Code and other applicable regulations as they relate to roadway safety and would not present a safety hazard. In addition, to provide internal access to all the residences, a new north-south roadway would be built parallel to Monticello Avenue. As described previously, access to from these intersections would operate at acceptable levels. Thus, impacts associated with roadway design safety hazards adjacent to this property would be less than significant.

Level of Significance

Less Than Significant (Civic Project and Residential Project)

Emergency Vehicle Access

Impact TRANS-4: The proposed plan could result in inadequate emergency access.

Construction

Civic Project and Residential Project

Emergency conditions related to a proposed plan resulting in inadequate vehicle emergency access are limited to operational impacts. During the construction period, two-way travel would be maintained on Oak Park Boulevard. Should Monticello Avenue between Oak Park Boulevard and Santa Barbara Road experience temporary one-way travel restrictions or be closed to travel, there are multiple access routes to Pleasant Hill Middle School and Pleasant Oaks Park. Construction detour signage would be provided. No respective construction impacts would occur.

Operation

Several factors determine whether a project has sufficient access for emergency vehicles, including:

1. Location of closest fire stations
2. Number of access points (both public and emergency access only)
3. Width, height, and turning radius of access points
4. Width, height, and turning radius of internal roadways

Each of these factors is discussed in further detail.

Civic Project—Proposed Park

The closest fire station to this property is Station No. 5 located at 205 Boyd Road approximately 0.61 mile to the north. The proposed park would be accessed from one roadway access point off Monticello Avenue approximately 300 feet north of the Monticello Avenue/Oak Park Boulevard intersection. Because the proposed park would not include habitable structures, one roadway access point would be sufficient. However, it is unclear how wide the access point and internal roadways would be resulting in a potentially significant impact. Implementation of MM TRANS-4 would require all access points and internal roadways to be compliant with the Pleasant Hill Municipal Code Chapter 14.05 requiring a fire apparatus access roadway that can accommodate a fire apparatus, has a minimum width of 20 feet and turning radius of 25 feet inside and 45 feet outside. Therefore, impacts related to adequate emergency access would be less than significant with mitigation.

Civic Project—Proposed Library

The closest fire station to the proposed library is Station No. 5 located at 205 Boyd Road approximately 0.61 miles to the north. At least two roadway access points are required if the building height exceeds 30-feet or the square footage exceeds 62,000 square feet. Because the proposed library is well below these size parameters, one roadway access point is sufficient for emergency vehicle access to the library building. However, it is unclear how wide the access point and internal roadways would be resulting in a potentially significant impact. Implementation of MM TRANS-4 would require all access points and internal roadways to be compliant with the Pleasant Hill Municipal Code Chapter 14.05 requiring a fire apparatus access roadway that can accommodate a fire apparatus, has a minimum width of 20 feet and turning radius of 25 feet inside and 45 feet outside.

Civic Project—Monticello Avenue Improvements

The proposed roadway improvements along Monticello Avenue would not require additional emergency access. These roadway improvements would consist of new concrete sidewalks, new bike lanes, pavement rehabilitation, new light emitting diode (LED) street lighting, and new landscaping. As such, these improvements would not change the configuration of Monticello Avenue restricting emergency access.

Civic Project—Oak Park Boulevard Improvements

The proposed roadway improvements along Oak Park Boulevard would not require additional emergency access. These roadway improvements would consist of a modified traffic signal at the Oak Park Boulevard/Monticello Avenue intersection, roadway widening to accommodate a new right and left turn pockets onto Monticello Avenue, and a westbound left turn only lane for access to the day care facility, new concrete sidewalks, new bike lanes, pavement rehabilitation, new LED street lighting,

and new landscaping. As such, these improvements would not change the configuration of Oak Park Boulevard restricting emergency access.

Overall

The proposed park and library would provide adequate access points. In addition, the Civic Project would implement MM TRANS-4, which would require all access points and internal roadways to be compliant with the Pleasant Hill Municipal Code Chapter 14.05. The roadway improvements would not change the configuration of roadways in a way that would restrict emergency access. Therefore, impacts to emergency vehicle access would be less than significant with mitigation.

Residential Project

The closest fire station to the proposed residencies is Station No. 5 located at 205 Boyd Road approximately 0.61 mile to the north. Access to the proposed residences would be provided from one roadway access point at Monticello Avenue approximately 500 feet north of the Monticello Avenue/Oak Park Boulevard intersection. The Residential Project proposes 34 single-family units with seven accessory dwelling units. Based on the 2016 California Fire Code as adopted by the Pleasant Hill Municipal Code, Chapter 14.05, projects that include 30 or more dwelling units would be required to either:

- Provide two separate approved fire apparatus access roads; or,
- All dwelling units would be equipped throughout with an approved automatic sprinkler system in accordance with Section 903.3.1.1, 903.3.1.2 or 903.3.1.3 of the California Fire Code.

As part of the Residential Project, all homes are currently designed to include an automatic sprinkler system. Implementation of MM TRANS-4 would require that two separate approved access roads are included in the design of the Residential Project or a sprinkler system is included in the residential home design. Additionally, implementation of MM TRANS-4 would require all access points and internal roadways to be compliant with Pleasant Hill Municipal Code, Chapter 14.05, requiring a roadway that can accommodate a fire apparatus, that has a minimum width of 20 feet, and that has a turning radius of 25 feet inside and 45 feet outside. Therefore, impacts related to adequate emergency access would be less than significant with mitigation.

Level of Significance Before Mitigation

Potentially Significant (Civic Project and Residential Project)

Mitigation Measures

MM TRANS-4 Prepare Fire Access Road Design and Sprinkler System Plan Prior to Construction

Civic Project: Prior to issuance of grading permits, the contractor for the Civic Project shall ensure that designs for the Civic Project include:

- Fire apparatus access road that provides a minimum width of 20 feet and with turning radius of 25 feet inside and 45 feet outside; and

Residential Project: Prior to issuance of grading permits, the contractor for the Residential Project shall ensure that designs for the Residential Project include:

- Fire apparatus access road that provides a minimum width of 20 feet and with turning radius of 25 feet inside and 45 feet outside and either;
- Two separated and approved fire apparatus access roads; or
- An approved automatic sprinkler system in accordance with Section 903.3.1.1, 903.3.1.2, or 903.3.1.3 of the California Fire Code.

Level of Significance After Mitigation

Less Than Significant (Civic Project and Residential Project)

3.14.5 - Cumulative Impacts

Other cumulative projects, in addition to the proposed plan, that could generate additional traffic through the study area are summarized in Chapter 3, Environmental Impact Analysis, Table 3-1, Cumulative Projects, and their locations are shown in Chapter 3, Environmental Impact Analysis, Exhibit 3-1.

Roadway Circulation and Facilities

Vehicle Level of Service

Intersection Level of Service

The cumulative roadway network or geographic context is the City of Pleasant Hill circulation network. This cumulative analysis assumes full buildout of the currently adopted Pleasant Hill General Plan (therefore, this included analysis includes all the projects listed in Chapter 3, Environmental Impact Analysis, Table 3-1). Cumulative forecasts were developed using traffic growth trends as described in the Pleasant Hill General Plan supplemented by a check of traffic forecasts for the study area in the CCTA Countywide Travel Demand Model, as well as considering approved and potential projects in the immediate study area. Exhibit 3.14-13 shows the cumulative peak-hour traffic volumes of the study intersections within the study area at proposed plan operation.

Existing peak-hour factors, heavy vehicle percentages, and pedestrian and bicycle activity at the study intersections remain unchanged from the existing condition for the assessment of Cumulative conditions, as the level of school traffic in the area is not expected to appreciably change. Table 3.14-13 displays the LOS analysis results for the study intersections under Cumulative Year (2040) Conditions.

Table 3.14-13: Cumulative Conditions—Peak-hour Intersection Levels of Service

	Intersection	Control	Peak-hour	Cumulative Conditions		Cumulative Plus Plan Conditions		
				Delay[1,3]	LOS	Delay[1,3]	LOS	Signal Warrant Met?
1	Patterson Boulevard and Boyd Road	AWSC	AM PM SA	14 13 12	B B B	14 13 13	B B B	— — —
2	Patterson Boulevard and Soule Avenue	SSSC	AM PM SA	8 **(62)** 2 (20) 2 (15)	A **(F)** A (C) A (B)	8 **(64)** 2 (20) 2 (16)	A **(F)** A (C) A (C)	No — —
3	Patterson Boulevard and Hawthorne Dr	SSSC	AM MD PM SA	21 **(100)** 3 (17) 1 (13) 2 (11)	C **(F)** A (C) A (B) A (B)	22 **(102**) 3 (17) 1 (13) 2 (11)	C **(F)** A (C) A (B) A (B)	No — — —
4	Patterson Boulevard and Santa Barbara Road	SSSC	AM MD PM SA	2 (17) 2 (13) 1 (13) 1 (11)	A (C) A (B) A (B) A (B)	3 (17) 2 (13) 1 (13) 1 (11)	A (C) A (B) A (B) A (B)	— — — —
5	Putnam Boulevard/Patterson Boulevard and Oak Park Boulevard	Signalized	AM MD PM SA	**66** 23 26 15	**E** C C B	**67** 24 27 16	**E** C C B	— — — —
6	Monte Cresta Avenue and Santa Barbara Road	AWSC	AM MD PM SA	9 9 7 7	A A A A	9 9 7 7	A A A A	— — — —
7	Monte Cresta Avenue and Oak Park Boulevard	SSSC	AM MD PM SA	12 **(>120)** 9 **(>120)** 7 **(>120)** 2 (22)	B **(F)** A **(F)** A **(F)** A (C)	13 **(>120)** 11 **(>120)** 8 **(>120)** 2 (23)	B **(F)** B **(F)** A **(F)** A (C)	No No No —
8	Monticello Avenue and Hawthorne Drive	SSSC	AM MD PM SA	11 (11) 6 (11) 7 (9) 7 (9)	B (B) A (B) A (A) A (A)	10 (11) 6 (11) 7 (11) 7 (9)	A (B) A (B) A (B) A (A)	— — — —
9	Monticello Avenue and Santa Barbara Road	SSSC	AM MD PM SA	3 (18) 4 (17) 3 (11) 4 (11)	A (C) A (C) A (B) A (B)	3 (22) 6 (19) 4 (12) 5 (11)	A (C) A (C) A (B) A (B)	— — — —
10	Oak Park Boulevard and Monticello Avenue	Signalized	AM MD PM SA	11 7 4 5	B A A A	12 12 9 12	B B A B	— — — —

Table 3.14-13 (cont.): Cumulative Conditions—Peak-hour Intersection Levels of Service

	Intersection	Control	Peak-hour	Cumulative Conditions		Cumulative Plus Plan Conditions		
				Delay[1,3]	LOS	Delay[1,3]	LOS	Signal Warrant Met?
13	Pleasant Valley Drive and Oak Park Boulevard [2]	Signalized	AM PM SA	16 12 9	B B A	16 12 11	B B B	— — —
14	North Main Street and Pleasant Valley Drive[2]	Signalized	AM PM SA	31 14 12	C B B	33 15 15	C B B	— — —
15	North Main Street and Oak Park Boulevard[2]	Signalized	AM PM SA	9 11 9	A B A	9 11 11	A B B	— — —
16	Monticello Avenue and Plan Driveway	SSSC	AM MD PM SA	— — — —	— — — —	0 (13) 4 (14) 4 (11) 6 (17)	A (B) A (B) A (B) A (C)	— — — —
17	Santa Barbara Road and Plan Driveway	SSSC	AM MD PM SA	— — — —	— — — —	1 (11) 1 (10) 2 (10) 2 (11)	A (B) A (A) A (A) A (B)	— — — —

Notes:
Bold indicates operations below the local LOS standard for acceptable operations (below LOS D).
[1] AWSC = All-way Stop Controlled; SSSC = Side-street StopControlled
[2] Intersections 13, 14, and 15 are evaluated using the HCM 2000 methodology.
[3] For side-street stop-controlled intersections, delay is presented for intersection average (worst movement).
Source: Fehr & Peers, 2018.

As shown under the Cumulative Plus Plan Condition, the addition of traffic associated with the proposed plan to other cumulative traffic would not degrade the operation of any study intersection from an overall acceptable service level to an unacceptable service level.

Vehicle Queues

Table 3.14-14 displays the 95th percentile queues for turning lanes at signalized intersections under Cumulative Year (2040) Plus Plan Conditions.

Table 3.14-14: Cumulative Conditions—95th Percentile Queue Summary at Signalized Intersections

Intersection	Movement	Storage Length (ft)[1]	AM Peak-hour		Mid-day Peak-hour		PM Peak-hour		Saturday Peak-hour	
			Without Plan	Plus Plan	Without Plan	Plus Plan	Without Plan	Plus Plan	Without Plan	Plus Plan
5: Putnam Boulevard/ Patterson Boulevard and Oak Park Boulevard	EBL	100	75	75	75	75	75	75	50	50
	WBL	110	**225**	**225**	**200**	**200**	**200**	**225**	100	110
	WBR	230	25	25	50	50	50	50	25	25
	NBL	100	**150**	**150**	**125**	**125**	**150**	**150**	75	75
	SBL	210	150	150	100	100	100	100	75	75
10: Oak Park Boulevard and	WBL	50	25	25	25	25	25	25	25	25
	WBR	0/150	—	100	—	100	—	50	—	100
Monticello Avenue	SB	700/300[2]	250	275	175	***375***	50	175	75	250
	EBL	150	—	25	—	50	—	25	—	50
13: Pleasant Valley Drive and Oak Park Boulevard	EBL	80	75	75	—	—	75	75	75	75
	WBL	80	75	75	—	—	50	50	50	50
	WBR	125	25	25	—	—	75	75	25	25
	NBR	25	0	0	—	—	0	0	0	0
	SBL	100	**250**	**250**	—	—	**150**	**150**	100	100
	SBR	100	75	75	—	—	50	50	50	50
14: North Main Street and Pleasant Valley Drive	EBL	400	100	125	—	—	175	175	100	100
	EBR	100	100	100	—	—	50	50	50	50
	NBL	125	125	125	—	—	ES	350	125	125
15: North Main Street and Oak Park Boulevard	EBL	310	100	100	—	—	75	100	75	75
	EBR	310	150	150	—	—	100	125	125	225
	NBL	75	50	50	—	—	75	75	50	50

Notes:
Bold indicates queue potentially extends beyond available storage.
Bold Italics indicates potentially significant impact
— = intersection was not evaluated for this time period. ES = Cannot be calculated.
[1] An additional 60 to 90 feet of storage is typically provided in the taper area outside of the through lane, which is not reflected in the storage length above.
[2] Reflects storage with the proposed plan
Source: Fehr & Peers 2019.

As shown Table 3.14-14, under the Cumulative Plus Plan Condition, the queues remain within the storage area except for the following intersections:

- Intersection 5—(Putnam Boulevard/Patterson Boulevard and Oak Park Boulevard): West-bound lanes and northbound lanes during the AM peak period, mid-day peak period, and PM peak period with and without proposed plan conditions.
- Intersection 10—(Oak Park Boulevard and Monticello Avenue): Southbound lane during the mid-day peak-hour with proposed plan conditions.
- Intersection 13—(Pleasant Valley Drive and Oak Park Boulevard): Southbound lane during the AM peak period and PM peak period with and without proposed plan conditions

Although vehicle queues could extend beyond the designated pockets under Cumulative Plus Plan conditions, based on the significant criteria these impacts are considered less than significant. In particular, vehicle queues in the southbound direction on Monticello Avenue at Oak Park Boulevard could extend beyond the library entrance during afternoon peak-hours around school closing bell times. This amount of queue spillback could make it difficult for patrons to access the library.

Signal Warrants

Signal warrants were evaluated for the unsignalized intersections where the side-street movement operates at LOS E or LOS F. As shown in Table 3.14-13, none of the unsignalized study intersections is projected to meet signal warrants in the cumulative condition prior to or with the addition of traffic associated with the proposed plan. Signal warrant worksheets are provided in Appendix J. Therefore, cumulative impacts related to the circulation system in terms of roadway facilities (specifically in terms of signal warrants) would be less than significant.

Transit, Bicycle, and Pedestrian Circulation and Facilities

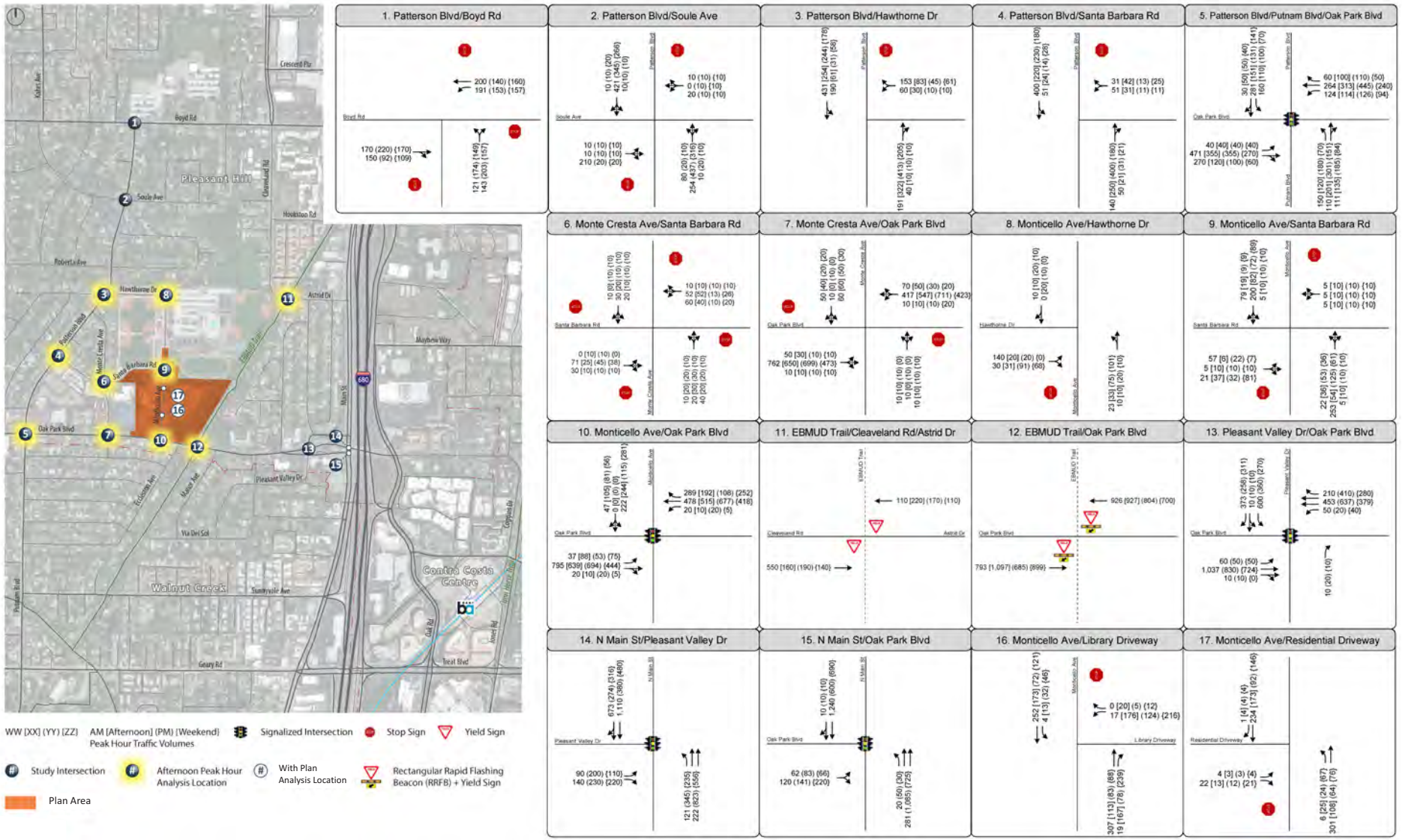
The proposed plan's impacts to transit, bicycle, and pedestrian circulation and facilities under cumulative conditions is the same as under existing conditions. While the expected growth in traffic could result in additional pedestrian crossing treatments to be warranted at the Astrid Drive/Cleaveland Road mid-block crossing, the proposed plan is not expected to add traffic to this roadway segment.

With respect to transit facilities, should construction or operation of the cumulative projects temporarily or permanently conflict with existing transit connections, the Civic and Residential project sponsors would coordinate with the City to provide alternative transit access.

With respect to pedestrian and bicycle facilities, Project 3, the Fountainhead Montessori Day Care, is the only project that shares a street with the plan area. The proposed plan would not remove the sidewalk that is currently provided along Oak Park Boulevard along the frontage of the Day Care facility. In addition, the proposed plan would not remove any bicycle lanes. Therefore, the proposed plan, in conjunction with cumulative projects, would have less than significant impact on transit, bicycle, and pedestrian circulation and facilities.

Roadway Safety and Emergency Access

Roadways constructed as part of the proposed plan and all projects listed in Chapter 3, Environmental Impact Analysis, Table 3-1, Cumulative Projects, would be constructed to meet current City of Pleasant Hill design standards.



Source: FEHR + PEERS, April 2019.

FIRSTCARBON SOLUTIONS™

Exhibit 3.14-13
Cumulative Plus Plan Peak Hour Traffic Volumes

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While the proposed plan, in conjunction with the projects listed in Table 3-1 (could increase congestion on area roadways, all study intersections are projected to operate within the City's level of service standard in the cumulative condition, except for the intersection of Putnam Boulevard/Patterson Boulevard at Oak Park Boulevard, which is projected to operate at a LOS E. The addition of traffic associated with the proposed plan would increase average intersection delay by 1-second, which is not considered a significant increase and would not result in impacts with respect to roadway safety and emergency access.

Trucks necessary to construct projects listed in Table 3-1 would utilize truck routes designated by the City and would not conflict with the automobile traffic and bicycle and pedestrian activity along City streets. If any of the projects listed in Table 3-1 would redesign City streets in such a way that would significantly impact roadway safety, they would be required by the City to mitigate such impacts. In addition, cumulative project driveways would be constructed in compliance with the California Fire Code and other applicable regulations related to roadway safety and emergency access. Therefore, cumulative impacts related to roadway safety and emergency vehicle access would be less than significant.

Level of Cumulative Significance

Less Than Significant (Civic Project and Residential Project)

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3.15 - Utilities and Service Systems

3.15.1 - Introduction

This section describes the existing conditions related to utilities and service systems (water, wastewater, stormwater, and solid waste) within the respective utility service areas, which cover the City of Pleasant Hill, and the Specific Plan area (plan area) vicinity as well as the relevant regulatory framework. This section also evaluates the impacts related to such utilities and service systems that could result from implementation of the Specific Plan (proposed plan). Information in this section is based on information provided by the Contra Costa Water District (CCWD), CCWD 2015 Urban Water Management Plan, and Central Contra Costa County Sanitary District (Central San) Collection System Master Plan. Note that electrical power and natural gas area addressed within Section 3.6, Greenhouse Gas Emissions and Energy. The following comments were received during the Environmental Impact Report (EIR) scoping period related to utilities and service systems:

- Request that the analysis address need to construct public main sewers and stormwater retention facilities, given that the proposed development would occur on previously vacant property;
- Request analysis of impacts to adjacent East Bay Municipal Utilities District (EBMUD) property;
- Requests that analysis acknowledge EBMUD would not be providing water service to the plan area; and
- Concern regarding garbage generated from recreation and park facilities.

3.15.2 - Environmental Setting

Water

Water Source and Supply

While the City of Pleasant Hill receives potable water from three water providers: CCWD, EBMUD, and Martinez Water District, the plan area is located within the CCWD water service area.[1] The CCWD provides water to approximately 500,000 people in Contra Costa County, as both a retail and wholesale water supplier. As a retailer, CCWD provides treated water to customers in the cities of Clayton, Clyde, Concord, Pacheco, Port Costa, and parts of Martinez, Pleasant Hill and Walnut Creek.

Table 3.15-1 summarizes the current and future water supply sources available to CCWD through 2035.

[1] Contra Costa Water District (CCWD). 2017. District Boundaries. Website: https://www.ccwater.com/289/Service-Area-Map. Accessed December 5, 2018.

Table 3.15-1: CCWD Current and Future Water Supply Sources

Source	Year (Acre-feet Per Year)				
	2015	2020	2025	2030	2035
Central Valley Project	183,000	195,000	195,000	195,000	195,000
Groundwater	3,000	3,000	3,000	3,000	3,000
Industrial Diversions	10,000	10,000	10,000	10,000	10,000
Mallard Slough	3,100	3,100	3,100	3,100	3,100
Antioch Diversions	5,400	6,400	6,400	6,400	6,400
East Contra Costa Irrigation District	7,100	8,200	8,200	8,200	8,200
Los Vaqueros Reservoir	—	—	—	—	—
Recycled	10,500	12,500	13,300	14,100	14,800
Planned Purchases	—	—	—	—	—
Conservation Savings	11,000	16,200	17,000	19,200	21,200
Total	**226,007**	**254,400**	**256,000**	**259,000**	**261,700**
Source: CCWD 2016.					

Surface Water

Contra Costa Water District Service Area

The CCWD surface water supply source is provided by the federal Central Valley Project (CVP) contract. Originating in the Sierra Nevada Mountains, water flows into the Sacramento and San Joaquin rivers into the Delta where it is drawn and transported via Contra Costa Canal. The Contra Costa Canal conveys untreated water from Rock Slough for deliveries throughout CCWD's service area. At approximately 48 miles long, the first 19 miles of the canal distribute major deliveries running from Rock Slough to the Shortcut Pipeline. Four pumping plants lift water 124 feet, which then flows by gravity. The Ygnacio Relift Pump Station diverts water into the City of Walnut Creek. The Shortcut Pipeline conveys untreated water from the canal to the Ralph D. Bollman Water Treatment Plant (WTP), the City of Martinez, Shell Oil Company, and other smaller industrial customers.

The CCWD owns and operates four untreated water storage reservoirs. The 34-foot dam and 160,000 acre-foot Los Vaqueros Reservoir provides improved water quality and emergency supply reliability to CCWD customers. The CCWD holds water rights that allow diversion of up to 95,980 acre-feet/year (AFY) of excess Delta Flows to Los Vaqueros Reservoir for storage between November 1 of each year and June 30 of the succeeding year, with the total combined limit on CCWD CVP contract and Los Vaqueros water rights diversions equal to 242,000 AFY.[2] The Contra Loma Reservoir has a storage capacity of 2,500 acre-feet. The Mallard Reservoir has a storage capacity of 2,100 acre-feet. The Mallard Reservoir provides water to the Ralph D. Bollman WTP and is used for emergency use, flow

[2] Contra Costa Water District (CCWD). 2016. 2015 Urban Water Management Plan.

regulation, and blending of different sources of supply. Lastly, the Martinez Reservoir's storage capacity is 230 acre-feet. The Martinez Reservoir provides regulating storage to capture flows from Canal operations and is the terminus of the Contra Costa Canal as well as the Shortcut Pipeline.

Plan Area

The plan area currently utilizes and is serviced with surface water provided by the CCWD.

Groundwater

Contra Costa Water District Service Area

The primary groundwater basins within the CCWD service area are the Ygnacio, Clayton, Pittsburg Plain, and Tracy Groundwater Basins or Sub-Basins. The CCWD does not manage groundwater, nor does it use groundwater to meet any demands. There are an undetermined number of wells throughout the CCWD service area owned by industries, private individuals, and public municipal water utilities including the cities of Martinez and Pittsburg, Golden State Water Company, and Diablo Water District.[3]

Plan Area

No groundwater wells are located within the plan area, nor is the plan area serviced by groundwater.

Recycled Water

Contra Costa Water District Service Area

Currently, over 10,000 AFY of recycled water is put to direct use in CCWD's service area. The CCWD has agreements with Central San and Delta Diablo (formerly known as Delta Diablo Sanitation District) regarding specific projects that provide recycled water supplies for industrial uses, wildlife enhancement, and landscape irrigation within CCWD's service area.[4] According to the 2015 Urban Water Management Plan (UWMP), Central San provides approximately 700 AFY (or approximately 228 million gallons per year or 0.6 million gallons per day (mgd) of recycled water to its customers within the cities of Pleasant Hill, Martinez, and Concord. These customers include golf courses, a community college, school athletic fields, parks and medians, a concrete and recycling batch plan, a woodchip and topsoil farm, a truck washing facility, and Contra Costa County Animal Shelter. Central San also utilizes up to 1,090 AFY (approximately 355 million gallons per year or 1 mgd) for internal use at its wastewater treatment plant for landscape irrigation.[5]

Plan Area

The plan area does not currently utilize recycled water.

Water Demand and Use

Contra Costa Water District Service Area

The CCWD 2015 UWMP summarizes the near-term and 2040 water demands during "Normal," "Single-Dry," and "Multi-Dry Year 3," scenarios in Figures 1-3 and 1-4 of the 2015 UWMP. According to Figure 1-3, the CCWD service area has a normalized near-term water demand of 150,000 acre-feet during near-term maximum dry year demands. According to Figure 1-4, the CCWD service area will

[3] *Ibid*.
[4] *Ibid*.
[5] *Ibid*.

have a 2040 normalized water demand of 190,000 acre-feet. The CCWD has maintained an effective water conservation program that has resulted in the district currently serving less water compared to 1990 levels despite a 40 percent increase in population.[6]

Plan Area

According to the most recent available information from the CCWD, the existing library used a total of 1,301,607 gallons of water over a 30-month period (starting in October 19, 2016 and up to February 19, 2019).[7] This correlates to an average annual water demand of 520,642 gallons. The remainder of the plan area does not currently generate any water demand.

Water Infrastructure and Distribution

Contra Costa Water District Service Area

The CCWD's primary conveyance facility for its untreated water supply is the Contra Costa Canal, which carries water from Rock Slough for deliveries throughout CCWD's service area, terminating at Martinez Reservoir. The Canal is approximately 48 miles long with the major deliveries within the first 26 miles, which runs from Rock Slough to the Shortcut Pipeline near the Ralph D. Bollman WTP in Concord.[8] The original Los Vaqueros Project included a new point of diversion (at Old River south of the Highway 4 crossing) that operates in conjunction with the Rock Slough diversion point and associated water transmission facilities, pumping plants, and other facilities. The pumping plant is at the Old River intake and has an installed capacity of 250 cubic feet per second (cfs). Diversion from the Old River intake for delivery to CCWD's service area began in the summer of 1997. In 2010, the CCWD completed construction of a pumping plant on Victoria Canal near Middle River that also has an installed capacity of 250 cfs.[9]

The two pumping plants are permitted to operate at a combined capacity of 320 cfs. Both the Middle River and Old River pumping plants pump water to the 4-million-gallon Transfer Reservoir. From the Transfer Reservoir, water either can flow by gravity to the Canal or is pumped up to the Los Vaqueros Reservoir by the Transfer Pump Station. Water stored in the Los Vaqueros Reservoir is conveyed to the Canal by gravity.[10]

The CCWD operates water distribution lines throughout the City, generally under public roadways and associated rights-of-way, as well as specific easements through public and private properties.

Plan Area

The CCWD water distribution lines within the plan area are currently located within easements under Oak Park Boulevard and Monticello Avenue.

[6] *Ibid*.
[7] Contra Costa Water District (CCWD). Dominic DeBellis, Customer Service Supervisor. Personal communication email. April 2, 2019.
[8] Contra Costa Water District (CCWD). 2016. 2015 Urban Water Management Plan, page 3-4.
[9] *Ibid*.
[10] *Ibid*.

Water Treatment

Contra Costa Water District Service Area

Ralph D. Bollman Water Treatment Plant

The Ralph D. Bollman WTP is located in the City of Concord and treats water for customers in the cities of Concord, Clayton, Clyde, Pacheco, Port Costa, and portions of Pleasant Hill, Walnut Creek, Martinez, and Bay Point. Water from the Mallard Reservoir is pumped into the WTP where it undergoes four steps before going into treated water storage: (1) hydraulic mixing, (2) flocculation and sedimentation, (3) oxidation, and (4) filtration. Total capacity of the Ralph D. Bollman WTP is 75 million gallons per day (mgd).

Randall-Bold Water Treatment Plant

The CCWD and Diablo Water District co-own the Randall-Bold WTP located in City of Oakley. The Randall-Bold WTP treats water before the water is pumped to the cities of Oakley, Brentwood, Antioch, and into CCWD's treated water distribution system. Water from the Los Vaqueros Reservoir is pumped into Randall-Bold Grit Basin and then undergoes five steps before going into treated water storage: (1) hydraulic mixing, (2) flocculation and sedimentation, (3) intermediate ozone, (4) filtration, and (5) post ozonation. Total capacity of the Randall-Bold WTP is 50 mgd.

Plan Area

The existing library uses surface water that is treated by Ralph D. Bollman WTP.

Wastewater

Wastewater Generation

Central Contra Costa County Sanitary District Service Area

Central San maintains the City of Pleasant Hill's wastewater collection system. The Central San service area is approximately 150 square miles with a population of 310,000. Central San includes the cities/towns of Danville, Lafayette, Moraga, Orinda, Pleasant Hill, and Walnut Creek; portions of Martinez and San Ramon; and unincorporated areas of Contra Costa County. Central San collects and treats an average of approximately 34 million gallons of wastewater per day and up to 230 million gallons per day (gpd) during extreme storm events.[11] Central San collected a total of 43,800 acre-feet of wastewater in 2015.

Central San has applied to the San Francisco Bay Regional Water Quality Control Board (RWQCB) to increase its effluent discharge limit to 53.8 mgd to accommodate planned growth of 111,000 people in the service area over the next 35 years. The increase would also accommodate worst-case scenarios for groundwater infiltration, which can significantly raise flow during summer months of high rainfall years (when groundwater accumulation reaches its peak).

Plan Area

Central San provides sanitary sewer service to the existing library and conveys sewer discharge from the existing library. Central San does not meter or monitor the amount of wastewater discharged from customer sites. Instead, Central San uses the water usage rate as a multiplier to charge users.

[11] Central Contra Costa County Sanitary District (Central San). 2017. Comprehensive Wastewater Master Plan.

Wastewater Infrastructure and Collection

Central Contra Costa County Sanitary District Service Area

The Central San wastewater collection system includes 1,500 miles of 4- to 102-inch-diameter sewers and an estimated 130,000 private service laterals. The system includes 18 sewage-pumping stations. Existing sewer lines convey wastewater generated by land uses within the City of Pleasant Hill to the Central San Treatment Plant for treatment and then disposal or reuse.[12] The Central San collection system master plan identifies facility improvements necessary to maintain collection service at or above this level. The 10-year CIP identifies the facility improvements that are prioritized and scheduled for implementation.

Plan Area

Existing sewer lines within the plan area are located within easements within the Civic Project site parcel and Monticello Avenue.

Wastewater Treatment

Central Contra Costa County Sanitary District Service Area

Central San Wastewater Treatment Plant

Wastewater generated in the service area is conveyed to the Central San Wastewater Treatment Plant (WWTP) where it is treated and then discharged into Suisun Bay. The Central San WWTP is located in an unincorporated area of Contra Costa County adjacent to the City of Martinez. Average dry weather flow for the 165-square mile Central San district in 1999 was 39.6 mgd, 88 percent of the amount allowed under the current National Pollution Discharge Elimination System (NPDES) permit. Based on its latest evaluation of treatment plant capacity, Central San projects that the existing infrastructure has sufficient capacity to accommodate 53.8 mgd without the need for additional treatment facilities (based on consumption of 225 gpd per dwelling unit and 1,000 gpd for nonresidential uses). The Central San treatment master plan identifies facility improvements necessary to maintain treatment service at or above this level, which are prioritized and scheduled for implementation in an annually updated Capital Improvement Budget and 10-year Capital Improvement Program.

The Central San WWTP treats an average of 35.6 million gallons of wastewater per day. Approximately 600 million gallons per year are treated to a tertiary level through additional filtration and disinfection before being distributed as recycled water for landscape irrigation, industrial processes, and plant operations. The Central San WWTP has a treatment capacity of 54 million gpd. Central San collects wastewater generated within the City of Pleasant Hill that is then treated at the Central San WWTP.

Plan Area

The existing library is provided wastewater treatment by Central San WWTP.

[12] Contra Costa Water District (CCWD). 2016. 2015 Urban Water Management Plan.

Stormwater

Stormwater Generation

Civic Project

The Civic Project site was developed but is currently vacant. Gutters and several stormwater drains extend along Monticello Avenue and Oak Park Boulevard that collect stormwater from the Civic Project site and adjacent single-family homes to the west.

The Civic Project site contains one 8-inch outfall, a 36-inch outfall, and an 8-inch abandoned storm drain. Stormwater sheet flows eastward across the site and drains into Grayson Creek. Exhibit 3.8-3 shows that the site is composed of pervious and impervious surfaces. The Civic Project site includes 9.54 acres of pervious surface and 2.09 acres of impervious surface.

Residential Project

The Residential Project site contains curbs and street level gutters that convey stormwater off-site and eventually into the City's storm drain network on Monticello Avenue and Oak Park Boulevard. Exhibit 3.8-3 shows that the Residential Project site is composed of pervious and impervious surfaces. The Residential Project site is comprised of 1.30 acres of pervious surface and 3.74 acres of impervious surface.[13]

Stormwater Infrastructure and Collection

Contra Costa County Public Works Service Area

The Contra Costa County Flood Control and Water Conservation District guides regional drainage plans throughout incorporated and unincorporated County areas. All stormwater drains into Suisun Bay via stormwater drainage systems and regional creeks and streams. The County Watershed Program is responsible for ensuring that the County complies with its municipal stormwater NPDES permits in unincorporated County land only.[14] The Contra Costa Clean Water Program (CCCWP) is responsible for ensuring that the County and incorporated cities comply with its municipal stormwater NPDES permits. Contra Costa County Public Works owns and maintains unincorporated County drainage facilities.[15] Incorporated cities within the service area of the Contra Costa County Public Works maintain drainage facilities within the municipality City limits.[16]

City of Pleasant Hill

The plan area is located within the Contra Costa County Public Works stormwater service area. Stormwater runoff within the City of Pleasant Hill is collected and disposed of by an integrated system of storm drains, inlets, curbside gutters, catch basins, drainage ditches, and man-made channels. The City of Pleasant Hill maintenance personnel inspect, clean, and maintain over 1,500 storm drains within the City and ensure inlets and drains are clear of debris in order to ensure stormwater flows freely.[17]

[13] Keith Palmer, BKF Engineers, 2019.
[14] Contra Costa County Flood Control District. No date. Website: http://www.cccounty.us/5586/Flood-Control. Accessed March 2019.
[15] BKF. Del Hombre Due Diligence, page 2. 2018.
[16] Contra Costa County Flood Control and Water Conservation District. Drainage, Watershed, and Water Quality FAQs, page 5.
[17] City of Pleasant Hill. Streets, Storm Drains, and Graffiti. Website: https://www.ci.pleasant-hill.ca.us/170/Streets-Storm-Drains-Graffiti.

Plan Area

Existing stormwater facilities within the plan area include a 24-inch storm drain under Oak Park Boulevard and a 15-inch line that connects to the 1750 Oak Park Property (library and administrative offices). The plan area currently experiences inundation during storm events. Exhibit 3.15-1 depicts the existing storm drainage system within the plan area.

Stormwater Treatment

Contra Costa County Public Works Service Area

The CCCWP offers education and outreach to residents and businesses throughout the County to help them reduce stormwater pollution. In addition, the CCCWP provides Best Management Practice (BMP) information and pollution prevention for municipal operations, new and redevelopment planning, industrial/commercial site controls, water quality monitoring, pesticide toxicity controls, trash reduction in creeks and land, mercury and Polychlorniated Biphenyl (PCB) controls, and other stormwater related compliance and enforcement activities through education and outreach to the public.[18]

Plan Area

The City of Pleasant Hill Clean Water Program implements the City of Pleasant Hill-specific components of the CCCWP. The City's program funds the following stormwater treatment activities: street sweeping, annual creek clean up, site inspections of businesses, City newsletter, new and redevelopment project pollution prevention review and inspection, teacher action grants, regional education campaigns, and compliance reporting.[19]

Electricity

Electricity is measured in kilowatts (kW)[20] or megawatts (MW). Electricity is used primarily for lighting, appliances, and other uses.

Electricity Demand and Use

City of Pleasant Hill

Pacific Gas & Electric (PG&E) provides service throughout most of Northern California, including all of Contra Costa County and the City of Pleasant Hill.[21] According to the most recent data from PG&E, Pleasant Hill utilized 19,743,421 kilowatt-hour (kWh) between January and March 2019.[22]

Plan Area

The existing library is the only property within the plan area that currently uses electricity. According to the California Emissions Estimator Model (CalEEMod) outputs in Appendix C, the existing library currently utilizes 516,355 kilowatt-hour (kWh) of electricity per year.

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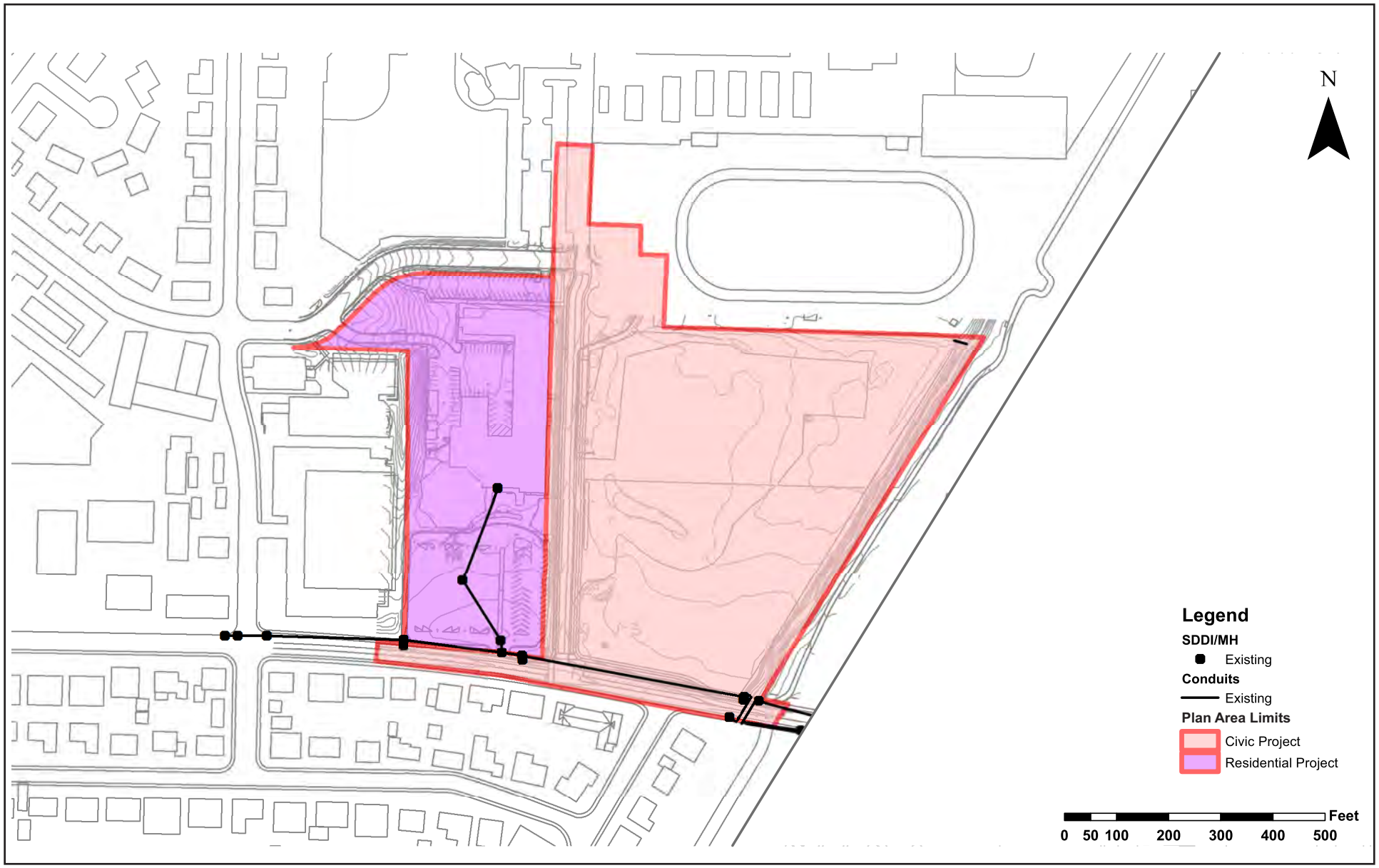
[18] Contra Costa Clean Water Program (CCCWP). Program Activities. Website: https://www.cccleanwater.org/about/program-activities

[19] City of Pleasant Hill. NPDES Program. Website: https://www.ci.pleasant-hill.ca.us/379/NPDES-Program.

[20] 1 kW = 1.000 watts; A watt is a derived unit of power that measure rate of energy conversion. 1 watt is equivalent to work being done at a rate of 1 joule of energy per second. In electrical terms, 1 watt is the power dissipated by a current of 1 ampere flowing across a resistance of 1 volt.

[21] Pacific Gas & Electric (PG&E). Electric Service Area Maps. Website: https://www.pge.com/tariffs/tm2/pdf/ELEC_MAPS_Service_Area_Map.pdf. April 16, 2019.

[22] Pacific Gas & Electric (PG&E). PG&E Energy Data Request-Public Data Sets, 2019_Q1_ElectricUsagebyZip. Website: https://pge-energydatarequest.com/public_datasets/download?type=electric&file=PGE_2019_Q1_ElectricUsageByZip.zip. April 17, 2019.



Source: WRECO, 2019.

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Exhibit 3.15-1
Existing Storm Drainage System

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Electricity Infrastructure and Distribution

City of Pleasant Hill

PG&E provides electricity infrastructure, such as overhead and underground power lines, throughout the City of Pleasant Hill.

Plan Area

Within the plan area, overhead power lines extend along the southern portion of Oak Park Boulevard adjacent to the roadway. At the intersection of Oak Park Boulevard and Monticello Avenue overhead power lines continue north adjacent to the western side of Monticello Avenue.

Natural Gas

Natural gas is used for everything from generating electricity for cooking and space heating to an alternative transportation fuel. Natural gas is measured in British thermal units (BTU), or cubic feet.[23]

Natural Gas Demand and Use

City of Pleasant Hill

PG&E provides service throughout most of Northern California, including all of Contra Costa County and the City of Pleasant Hill.[24] According to the most recent data from PG&E, Pleasant Hill utilized 2,369,448 therms between January and March 2019.[25]

Plan Area

The existing library currently utilizes natural gas for heating and water heating. PG&E provides natural gas to the library. Based on the CalEEMod default values for a 37,364-square-foot library in Contra Costa County, the existing library utilizes 924,759 kilo-BTU (kBTU) of natural gas per year (Appendix C).

Natural Gas Infrastructure and Distribution

City of Pleasant Hill

PG&E's natural gas and electricity services cover approximately 70,000 square miles in Northern and Central California. The transmission and delivery system comprises 1.5 million miles of transmission pipelines and distribution systems delivering natural gas to over 16 million people.

Plan Area

Natural gas lines may extend on the 1750 Oak Park property and along the joint trench along Monticello Avenue.

Telecommunications

Telecommunication services include telephone service (both landlines and mobile service) and internet service for businesses and homes.

[23] A unit for quantity of heat that equals 100,000 British thermal units (BTU). A BTU is the quantity of heat required to raise the temperature of 1 pound of liquid water 1 degree Fahrenheit at a constant pressure of 1 atmosphere.

[24] Pacific Gas & Electric (PG&E). Gas Service Area Maps. Website: https://www.pge.com/tariffs/tm2/pdf/GAS_MAPS_Service_Area_Map.pdf. April 17, 2019.

[25] Pacific Gas & Electric (PG&E). PG&E Energy Data Request-Public Data Sets, 2019_Q1_GasUsagebyZip. Website: https://pge-energydatarequest.com/public_datasets/download?type=gaz&file=PGE_2019_Q1_GasUsageByZip.zip. April 17, 2019.

Telecommunications Demand and Use

City of Pleasant Hill

City of Pleasant Hill telecommunications demand is met by Xfinity, AT&T, and Wave Broadband.

Plan Area

The existing library provides telecommunications to the community as part of the internet and phone services provided by the library.

Telecommunications Infrastructure and Distribution

Telecommunications infrastructure includes underground optical fibers, cell towers, and standard phone equipment and internet routers.

City of Pleasant Hill

Telecommunications providers own and operate infrastructure, such as cellphone towers and fiber optic cables, within the City of Pleasant Hill.

Plan Area

The plan area contains telecommunications infrastructure for use by the existing library.

Solid Waste

Solid Waste Generation

City of Pleasant Hill

The City generated 24,471 tons of solid waste in 2017, down from 24,868 tons in 2016.[26] Waste generated within the City is hauled to the Contra Costa Transfer Station, which is permitted to collect and process up to 1,900 tons of solid waste per day.

Plan Area

Using a 0.007-pounds-per-square-foot per-day solid waste generation rate, the existing 37,364-square-foot Pleasant Hill Library generates an estimated 262 pounds of solid waste per day and 95,465 pounds per year.[27] Because the municipal administrative offices are vacant, this use was not included in the calculation for existing solid waste generation at this property.

Solid Waste Collection

Contra Costa County Solid Waste Authority Service Area

The plan area is located within the Central Contra Costa County Solid Waste Authority solid waste service area. Central Contra Costa County Solid Waste Authority (RecycleSmart) provides solid waste and residential recycling services for incorporated and unincorporated areas within Contra Costa County. RecycleSmart holds franchise agreements with solid waste collection providers to collect and dispose of residential and commercial solid waste.

[26] California Department of Resources Recycling and Recovery (CalRecycle). 2019. Jurisdiction Review Reports. Website: https://www2.calrecycle.ca.gov/LGCentral/AnnualReporting/ReviewReports/DisposalTonnageTrend. Accessed January 4, 2019.

[27] California Department of Resources Recycling and Recovery (CalRecycle). 2019. Website: https://www2.calrecycle.ca.gov/wastecharacterization/general/rates.

Republic Services is a private company providing non-hazardous solid waste and recycling services for commercial, industrial, municipal, and residential customers. Republic Services, under agreement with RecycleSmart, provides solid waste disposal services within the City of Pleasant Hill. The California Department of Resources Recycling and Recovery (CalRecycle) indicates that the City of Pleasant Hill's diversion rate is 49 percent as of 2006.[28]

Plan Area

RecycleSmart provides solid waste and residential recycling services for plan area.

Solid Waste Disposal

Contra Costa County Solid Waste Authority Service Area

The landfills accepting solid waste generated by unincorporated and incorporated Contra Costa County, including the City of Pleasant Hill, are the Acme and Keller Canyon Landfills. These landfills are located in the City of Martinez and City of Pittsburg, respectively. Table 3.15-2 provides a summary regarding these two landfills in terms of land jurisdiction location, maximum daily throughput, and permitted and remaining capacities. Both landfills have remaining capacity.

Table 3.15-2: Landfills Serving Contra Costa County Summary

Landfill Facility	Land Jurisdiction Location	Maximum Daily Throughput	Cubic Yards	
			Permitted Capacity	Remaining Capacity
Acme Landfill	City of Martinez	1,500 tons/day	6,195,000 cubic yards	506,590 cubic yards
Keller Canyon Landfill	City of Pittsburg	3,500 tons/day	75,018,280 cubic yards	63,408,410 cubic yards
Source: Cal Recycle 2016				

Plan Area

Acme Landfill and Keller Canyon Landfill provide solid waste landfill service to the plan area.

3.15.3 - Regulatory Framework

Federal

Federal Safe Drinking Water Act

The Safe Drinking Water Act authorizes the United States Environmental Protection Agency (EPA) to establish national standards for drinking water, called the National Primary Drinking Water Regulations, to protect against both naturally occurring and manmade contaminants. These standards set enforceable maximum contaminant levels in drinking water and require all water providers in the United States to treat water to remove contaminants, except for private wells serving fewer than 25 people. In California, the State Department of Health Services conducts most enforcement activities.

[28] California Department of Resources Recycling and Recovery (CalRecycle). 2019. Jurisdiction Review Reports. Website: https://www2.calrecycle.ca.gov/LGCentral/AnnualReporting/ReviewReports/DisposalTonnageTrend. Accessed February 8, 2019.

Clean Water Act (National Pollutant Discharge Elimination System)

The Water Pollution Control Act of 1972, more commonly known as the Clean Water Act (CWA), regulates the discharge of pollutants into watersheds throughout the nation. Under the CWA, the EPA implements pollution control programs and sets wastewater standards.

The NPDES permit program was established within the CWA to regulate municipal and industrial discharges to surface waters of the United States. Federal NPDES permit regulations have been established for broad categories of discharges, including point-source municipal waste discharges and nonpoint-source stormwater runoff. NPDES permits generally identify effluent and receiving water limits on allowable concentrations and/or mass emissions of pollutants contained in the discharge; prohibitions on discharges not specifically allowed under the permit; and provisions that describe required actions by the discharger, including industrial pretreatment, pollution prevention, self-monitoring, and other activities. Wastewater discharge is regulated under the NPDES permit program for direct discharges into receiving waters and by the National Pretreatment Program for indirect discharges to a sewage treatment plant.

State

Porter-Cologne Water Quality Control Act

Section 13260(a) of the Porter-Cologne Water Quality Control Act (contained in the California Water Code) requires any person discharging waste or proposing to discharge waste, other than to a community sewer system, within any region that could affect the quality of the waters of the State (all surface and subsurface waters) to file a report of waste discharge. The discharge of dredged or fill material may constitute a discharge of waste that could affect the quality of waters of the State. The waterway within the plan area is a likely a waters of the State, which are protected under this Act.

Historically, California relied on its authority under Section 401 of the CWA to regulate discharges of dredged or fill material to waters of the U.S. That section requires an applicant to obtain "water quality certification" from the State Water Board through its RWQCBs to ensure compliance with State water quality standards before certain federal licenses or permits may be issued. The permits subject to Section 401 include permits for the discharge of dredged or fill materials (CWA § 404 permits) issued by the United States Army Corp of Engineers (USACE). The RWQCB's typically waived waste discharge requirements under the Porter-Cologne Water Quality Control Act for projects or plans that also required Section 401 certification. Following the U.S. Supreme Court's decision *Rapanos v. United States,* 547 U.S. 715 (2006) which limited the jurisdiction of wetlands under the CWA, the RWQCB's now generally rely on the report of waste discharge process to regulate discharges into waters of the State.

California Urban Water Management Planning Act

The Urban Water Management Planning Act (California Water Code §§ 10610-10656) requires that all urban water suppliers with at least 3,000 customers prepare urban water management plans and update them every 5 years. The act requires that urban water management plans include a description of water management tools and options used by that entity that will maximize resources and minimize the need to import water from other regions. Specifically, urban water management plans must:

- Provide current and projected population, climate, and other demographic factors affecting the supplier's water management planning;
- Identify and quantify, to the extent practicable, the existing and planned sources of water available to the supplier;
- Describe the reliability of the water supply and vulnerability to seasonal or climatic shortage;
- Describe plans to supplement or replace that source with alternative sources or water demand management measures;
- Describe the opportunities for exchanges or transfers of water on a short-term or long-term basis (associated with systems that use surface water);
- Quantify past and current water use;
- Provide a description of the supplier's water demand management measures, including schedule of implementation, program to measure effectiveness of measures, and anticipated water demand reductions associated with the measures; and
- Assess the water supply reliability.

Pursuant to the Urban Water Management Planning Act, the CCWD maintains an UWMP.

California Health and Safety Code

Section 64562 of the California Health and Safety Code establishes water supply requirements for service connections to public water systems. Before additional service connections can be permitted, enough water must be available to the public water system from its water sources and distribution reservoirs to adequately, dependably, and safely meet the total requirements of all water users under maximum-demand conditions.

California Senate Bills 610 and 221

Senate Bill (SB) 610 and SB 221 (Water Code § 10910(c)(2)) amended State law, effective January 1, 2002, to improve the link between information on water supply availability and certain land use decisions made by cities and counties. SB 610 and SB 221 seek to promote more collaborative planning between local water suppliers and cities and counties by requiring that detailed information regarding water availability be provided to decision-makers prior to approval of specified large development projects. SB 610 requires that detailed information be included in a Water Supply Assessment (WSA), which is then included in the administrative record that serves as the evidentiary basis for an approval action by a city or county. SB 221 requires that the detailed information be included in a verification of water supply. Under SB 610, WSAs must be furnished to local governments for inclusion in any environmental documentation for certain projects (as defined in Water Code Section 10912(a)) subject to the California Environmental Quality Act (CEQA).

California Green Building Standards Code

The 2016 California Green Building Code (Part 11, Title 24) standards became effective on January 1, 2011. The California Green Building Standards Code (CALGreen) was most recently updated in 2016,

and these changes went into effect on January 1, 2017.[29] CALGreen was developed to enhance the design and construction of buildings and sustainable construction practices through planning and design, energy efficiency, water efficiency and conservation, material conservation and resource efficiency, and environmental air quality.

For each year of construction, in both newly constructed buildings and alterations to existing buildings, the 2013 Standards (for residential and nonresidential buildings) were expected to reduce the growth in electricity use by 555.5 gigawatt-hours per year and to reduce the growth in peak electrical demand by 148.4 megawatts. The 2013 Standards were also expected to reduce the growth in natural gas use by 7.04 million therms per year beyond the prior 2008 Standards. Overall, the 2013 Standards use 25 percent less energy for lighting, heating, cooling, ventilation, and water heating than the 2008 Standards. Single-family homes built to the 2016 standards will use about 28 percent less energy for lighting, heating, cooling, ventilation, and water heating than those built to the 2013 standards. In 30 years, California will have saved enough energy to power 2.2 million homes, reducing the need to build 12 additional power plants.

The 2016 Building Energy Efficiency Standards may reduce statewide annual electricity consumption by approximately 281 gigawatt-hours per year, electrical peak demand by 195 megawatts, and natural gas consumption by 16 million therms per year. The potential effect of these energy savings to air quality may be a net reduction in the emission of nitric oxide by approximately 508 tons per year, sulfur oxides by 13 tons per year, carbon monoxide by 41 tons per year, and particulate matter less than 2.5 microns in diameter by 13.57 tons per year. Additionally, Energy Commission staff estimated that the implementation of the 2016 Standards may reduce Statewide greenhouse gas (GHG) emissions by 160,000 metric tons of carbon dioxide equivalents per year.

Over time, the energy savings will accumulate as the Standards affect each subsequent year of construction. The savings result from changes to both the residential and nonresidential standards. The Standards affect both newly constructed buildings and alterations to existing buildings. These savings result from retrofit insulation requirements for existing roofs and the energy requirement for renovated lighting systems to meet the updated Standards.

California Water Conservation Act

The California Water Conservation Act (SB X7-7) was enacted in November 2009 and requires each urban water supplier to select one of four water conservation targets contained in California Water Code Section 10608.20 with the Statewide goal of achieving a 20 percent reduction in urban per-capita water use by 2020. Under SBX7-7, urban retail water suppliers are required to develop water use targets and submit a water management plan to the Department of Water Resources by July 2011. The plan must include the baseline daily per-capita water use, water use target, interim water use target, and compliance daily per-capita water use.

[29] California Building Standards Commission (CBC). 2016. Green Building Standards. Website: https://www.ladbs.org/docs/default-source/publications/code-amendments/2016-calgreen_complete.pdf?sfvrsn=6. Accessed March 4, 2019.

California Model Water Efficient Landscape Ordinance

The California Model Water Efficient Landscape Ordinance was adopted by the Office of Administrative Law in September 2009, and requires local agencies to implement water efficiency measures as part of its review of landscaping plans. Local agencies can either adopt the Model Water Efficient Landscape Ordinance or incorporate provisions of the ordinance into its own code requirements for landscaping. For new landscaping projects of 2,500 square feet or more that require a discretionary or ministerial approval, the applicant is required to submit a detailed "Landscape Documentation Package" that discusses water efficiency, soil management, and landscape design elements.

California Groundwater Management Act

The Groundwater Management Act of the California Water Code (Assembly Bill [AB] 3030) provides guidance for applicable local agencies to develop voluntary Groundwater Management Plans (GMPs) in State-designated groundwater basins. GMPs can allow agencies to raise revenue to pay for measures influencing the management of the basin, including extraction, recharge, conveyance, maintenance, and water quality.

California Sanitary District Act of 1923

The California Sanitary District Act of 1923 (Health and Safety Code § 6400, *et seq*.) authorizes the formation of sanitation districts and enforces the districts to construct, operate, and maintain facilities for the collection, treatment, and disposal of wastewater. The Act was amended in 1949 to allow the districts to also provide solid waste management and disposal services, including refuse transfer and resource recovery.

California Integrated Waste Management Act

To minimize the amount of solid waste that must be disposed of by transformation and land disposal, the State Legislature passed the California Integrated Waste Management Act of 1989 (AB 939), effective January 1990. The legislation required each local jurisdiction in the State to set diversion requirements of 25 percent in 1995 and 50 percent in 2000; established a comprehensive statewide system of permitting, inspections, enforcement, and maintenance for solid waste facilities; and authorized local jurisdictions to impose fees based on the types or amounts of solid waste generated. In 2007, amendments to AB 939 introduced a new per capita disposal and goal measurement system that moves the emphasis from an estimated diversion measurement number to using an actual disposal measurement number as a per capita disposal rate factor. As such, the new disposal-based indicator (pounds per person per year) uses only two factors: a jurisdiction's population (or in some cases employment) and its disposal as reported by disposal facilities.

Regional

San Francisco Bay Regional Water Quality Control Board (Stormwater Permitting Program)

The San Francisco Bay RWQCB administers the NPDES stormwater permitting program and regulates stormwater in the San Francisco Bay region. Contra Costa County is a permittee under the Phase II NPDES Municipal Stormwater Permit for the CCCWP. Stormwater discharges from construction activities on 1 acre or more are regulated by the RWQCB and are subject to the permitting

requirements of the NPDES General Permit for Discharges of Stormwater Runoff Associated with Construction Activity (General Construction Permit).

Local

Pleasant Hill 2003 General Plan

Community Development Element

The Pleasant Hill 2003 General Plan establishes the following guiding and implementing policies associated with utilities and service systems that are relevant to the proposed plan:

Community Development Goals, Policies, and Programs

- **Goal 11.** Ensure adequacy of water supply, sewage, disposal, and solid waste services.
- **Policy 11A**. Ensure that basic services are provided to proposed development and that the provision of those services does not jeopardize service to existing uses.
- **Program 11.1.** Consult with water providers and the Sanitary District prior to approving development.
- **Program 11.2.** Continue to improve on recycling efforts, with the goal of attaining the mandated 50 percent diversion rate.

Pleasant Hill Municipal Code

Chapter 18.52 Water-Efficient Landscaping

This chapter ensures the requirements of the State Water Conservation in Landscaping Act (Government Code §§ 65591–65599) are implemented. This chapter would require all projects to submit a water-efficient landscape plan and have the plan approved prior to construction. The water-efficient landscape plan would include calculations of the maximum applied water allowance and estimated total water use. In addition, the water-efficient landscape plan would include required elements of plant materials, irrigation system design, water features, and grading and soil preparation.

Chapter 14.40 Construction and Demolition Debris

The proposed plan shall comply with this chapter as a condition of approval, which shall require a Waste Management Plan (WMP). The WMP shall include the following:

a) The total square footage of the area to be constructed or demolished;

b) a list of the C&D debris material types to be generated;

c) The identity of the vendor(s) or facility(ies) that the applicant proposes to use to collect or receive that material; and

d) An acknowledgement of responsibility that the applicant understands the consequences of not meeting the 50% diversion requirement and that the applicant is responsible for the actions of their contractors or other agents with regard to the diversion requirement.

The chief building official would approve the WMP only if it meets conditions contained in the Chapter.

3.15.4 - Impacts and Mitigation Measures

Significance Criteria

According to 2019 CEQA Guidelines Appendix G, to determine whether impacts related to utilities and service systems are significant environmental effects, the following questions are analyzed and evaluated. Would the proposed plan:

a) Require or result in the relocation or construction of new or expanded water or wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction of which could cause significant environmental effects?

b) Have sufficient water supplies available to serve the proposed plan and reasonably foreseeable future development during normal, dry, and multiple dry years?

c) Result in a determination by the wastewater treatment provider which serves or may serve the plan area that it has adequate capacity to serve the proposed plan's projected demand in addition to the provider's existing commitments?

d) Generate solid waste in excess of State or local standard, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

e) Comply with federal, State, and local management and reduction statutes and regulations related to solid waste?

Approach to Analysis

Water

The demand for potable water (both with and without use of recycled water) was calculated to assist in determining whether sufficient water supply would be available from the CCWD. The CCWD's water provision requirements were also reviewed.

Wastewater

Wastewater production was calculated and compared with Central San treatment capacity to determine whether wastewater treatment requirements would be exceeded. The Central San's wastewater discharge permitting requirements were also reviewed.

Stormwater

Stormwater production was calculated and compared with City of Pleasant Hill stormwater facility treatment capacity to determine whether stormwater collection requirements would be exceeded.

Solid Waste

Solid waste production was calculated and compared with the applicable landfill capacity to determine whether landfill daily permitted capacity and total storage capacity would be exceeded. The City's and RecycleSmart's solid waste regulations and policies were also reviewed.

Telecommunications

The telecommunications providers in the City of Pleasant Hill were identified.

Section 3.6, Greenhouse Gas Emissions and Energy, addresses electricity and natural gas services.

Specific Thresholds of Significance

For purposes of this analysis, the following thresholds are used to evaluate the significance of hazards and hazardous materials impacts resulting from implementation of the proposed plan.

- Create a need for relocated, new, or expanded water supply, wastewater treatment, stormwater drainage facilities, electric power, natural gas, or telecommunications facilities, the construction of which would result in significant construction-related traffic, air quality, GHG emissions, energy, or noise impacts. Determination of significance of construction-related traffic, air quality, GHG emissions, energy, or noise impacts is based on the respective specific thresholds of significance listed in Section 3.14, Transportation; Section 3.2, Air Quality; Section 3.6, Greenhouse Gas Emissions and Energy; and Section 3.10, Noise.
- Result in insufficient water supply to serve the proposed plan's potable water demand during normal, dry, and multiple dry years.
- Inadequate capacity at the Central San facility to serve the proposed plan's wastewater generation
- Insufficient daily capacity or permitted daily capacity at the ACME and Keller Canyon Landfills to serve the proposed plan's waste generation.
- Unable to comply with AB 939 solid waste diversion goals.

Impact Evaluation

Water, Wastewater, Stormwater, and Telecommunication Facilities

Impact UTIL-1:	**The proposed plan could require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects.**

Construction

Water

Civic Project and Residential Project

Demand and Consumption

Construction would necessitate the occasional use of water for dust control, mixing concrete, washing equipment and vehicles, and other activities. In addition, construction workers would consume water. Water used for construction and water consumed by construction workers would result in a nominal amount of water use on a daily basis. The UWMP determined that the CCWD has sufficient water supplies to accommodate the anticipated population growth throughout its service area, including population growth associated with the proposed plan. In addition, the CCWD provides water service to the plan area. The water demand and supply is accounted for in the WSA as described in Chapter 7 of the UWMP. Because construction would require a minimal, limited quantity of water, the CCWD would have adequate capacity to serve construction demands in addition to its other existing commitments, and new or expanded entitlements would not be necessary. Therefore, construction

impacts related to need for new water supply infrastructure facilities as a result of water demand would be less than significant.

Infrastructure Construction, Expansion, or Relocation

No new or expanded water treatment facilities would be constructed as part of the implementation of the proposed plan.

The implementation of the proposed plan would result in the construction of new water line connections from existing water lines. Potential construction impacts related to implementation of the proposed plan (and associated expansion of existing water infrastructure) are included in the construction analyses in Section 3.2, Air Quality; Section 3.6, Greenhouse Gas Emissions and Energy; Section 3.10, Noise; and Section 3.14, Transportation. Construction related to extension and expansion of existing water infrastructure would represent a potentially significant impact. However, with implementation of construction-related Mitigation Measure (MM) AIR-2, MM AIR-3, MM GHG-1, MM NOI-1, and MM TRANS-1a, impacts related to construction or expansion of water supply infrastructure facilities would be reduced to less than significant. Therefore, construction impacts related to planned construction, expansion, and relocation of water infrastructure facilities would be less than significant with mitigation.

Wastewater

Civic Project and Residential Project

Generation

Construction of the Civic Project and Residential Project would result in the generation of wastewater associated with water used for dust control, mixing concrete, washing equipment and vehicles, and other activities as well as wastewater generated from construction workers. Neither the Civic Project nor the Residential Project propose industrial or commercial use where wastewater pollutant levels or wastewater volumes are typically high. The Central San Treatment Facility would treat wastewater generated by future Specific Plan development within the plan area consistent with standards established by the San Francisco Bay Area RWQCB. The Central San published the Comprehensive Wastewater Master Plan in June 2017, which considered the existing and future wastewater treatment and recycled water needs of Contra Costa County, including the City of Pleasant Hill. The Comprehensive Wastewater Master Plan identifies and describes the needed capacity increases and treatment process upgrades needed to accommodate the anticipated future growth within the Central San service area. As discussed under Impact UTIL-3, the Central San Treatment Facility would contain sufficient capacity to serve the Civic Project and Residential Project, and a new or expanded wastewater treatment facility would not be required. Therefore, construction impacts related to need for new wastewater infrastructure facilities as a result of wastewater generation would be less than significant.

Infrastructure Construction, Expansion, or Relocation

No new or expanded wastewater treatment facilities would be required as a result on implementation of the proposed plan. The Civic Project and Residential Project would each include new connections from existing wastewater lines in Oak Park Boulevard and Monticello Avenue to the proposed uses. The existing 10-inch sanitary sewer line that runs underneath the 1700 Oak Park property would need to be re-routed around the proposed library. Potential impacts related to

construction of the Civic Project and Residential Project are included in the construction analysis in Section 3.2, Air Quality; Section 3.6, Greenhouse Gas Emissions and Energy; Section 3.10, Noise; and Section 3.14, Transportation, and potentially significant impacts are identified. However, with implementation of construction-related MM AIR-2, MM AIR-3, MM GHG-1, NOI-1, and TRANS-1a, construction impacts related to need for expansion of wastewater facilities would be reduced to less than significant. Therefore, impacts related to planned construction, expansion, and relocation of wastewater infrastructure facilities would be less than significant with mitigation.

Stormwater

Civic Project

As discussed in the Section 3.8, Hydrology and Water Quality, the Civic Project includes planned improvements to the storm drainage system across the Civic Project site, which would enhance the existing system through upsizing of drainage lines to better accommodate storm flows, upgrading of existing outfalls in Grayson Creek, and provision of rip rap at the outfalls for energy dissipation. The planned improvements would capture and redirect flows to minimize flooding that currently occurs across the Civic Project site during extreme rain events.

The Civic Project would adhere to the Construction General Permit, which would require implementation of a Storm Water Pollution Prevention Plan (SWPPP) to abate sedimentation and erosion impacts at the Civic Project site during construction. In addition, BMPs would be enforced to regulate discharges into the storm drain system during construction. Section 3.8, Hydrology and Water Quality, provides a full breakdown of on-site stormwater retention facilities as well as an analysis of stormwater runoff and construction-related impacts.

Furthermore, the City of Pleasant Hill routinely conducts street sweeping and storm drain facility cleaning as part of implementing its Clean Water Program. Therefore, construction impacts related to need for new stormwater infrastructure facilities as a result of stormwater generation would be less than significant.

Residential Project

The Residential Project would remove and replace the existing 15-inch storm drain line. A new line would connect to the storm drain system in Monticello Avenue and Oak park Boulevard, which has sufficient capacity to accommodate the Residential Project as further discussed in Section 3.8, Hydrology and Water Quality.

As discussed in Section 3.8, Hydrology and Water Quality, the Residential Project would result in a net decrease in impervious surfaces. In compliance with C.3 requirements, the Residential Project would also include bio-retention basins, which would ensure that there would not be an increase in runoff that could exceed the storm drainage capacity or redirect flood flows. Potential construction impacts related to construction of the Residential Project (and associated construction and expansion of bio-retention basins) are included in the construction analysis in Section 3.2, Air Quality; Section 3.6, Greenhouse Gas Emissions and Energy; Section 3.10, Noise; and Section 3.14, Transportation. Construction related to the extension and expansion of existing stormwater infrastructure would represent a potentially significant impact.

However, with implementation of construction-related MM AIR-2, MM AIR-3, MM GHG-1, MM NOI-1, and MM TRANS-1a, construction impacts related to need for relocation or construction of new or expanded stormwater facilities would be reduced to less than significant. Therefore, construction impacts related to planned construction, expansion, and relocation of wastewater infrastructure facilities would be less than significant with mitigation.

Electricity

Civic Project and Residential Project

Demand and Consumption

Implementation of the proposed plan would consume electricity for construction work areas, field services (office trailers), and electric-driven equipment such as pumps and other tools. The Pleasant Hill Municipal Code limits construction activities to the hours between 7:30 a.m. and 7:00 p.m. on weekdays, and 9:00 a.m. and 6:00 p.m. on Saturdays and Sundays. As on-site construction activities would be restricted between these hours, it is anticipated that the use of construction lighting would be minimal. Due to the temporary nature of construction and the financial incentives for developers and contractors to use energy-consuming resources in an efficient manner, construction demand and consumption of electricity would not be significant. Therefore, construction impacts related to need for new electrical supply infrastructure facilities as a result of electricity demand would be less than significant.

Infrastructure Construction, Expansion, or Relocation

Implementation of the proposed plan would include new connections from existing electrical lines along Oak Park Boulevard and Monticello Avenue to the proposed residential, library, and park uses. The existing overhead electrical line that runs on the west side of Monticello Avenue would be removed and placed underground during construction. Potential construction impacts related to construction of the Civic Project and Residential Project (and associated expansion of existing electrical infrastructure) are included in the construction analysis in Section 3.2, Air Quality; Section 3.6, Greenhouse Gas Emissions and Energy; Section 3.10, Noise; and Section 3.14, Transportation. Construction related to extension and expansion of existing electrical infrastructure would represent a potentially significant impact.

However, with implementation of MM AIR-2, MM AIR-3, MM GHG-1, MM NOI-1, and MM TRANS-1a, impacts related to need for relocation or construction of new or expanded electrical facilities would be reduced to less than significant. Therefore, construction impacts related to planned construction, expansion, and relocation of electrical infrastructure facilities would be less than significant with mitigation.

Natural Gas

Civic Project and Residential Project

Demand and Consumption

Implementation of the proposed plan would not consume natural gas for construction purposes. Therefore, there would be no construction impact related to need for new natural gas supply infrastructure facilities as a result of natural gas demand.

Infrastructure Construction, Expansion, or Relocation

Implementation of the proposed plan would include new connections from existing natural gas lines along Oak Park Boulevard and Monticello Avenue to the proposed residential, library, and park uses. An existing natural gas line runs within the west side of Monticello Avenue and then crosses over to the east side of Monticello Avenue before Santa Barbara Road. The proposed plan would result in moving the natural gas line to the joint trench along Monticello Avenue. Potential construction impacts related to construction of the proposed plan (and associated expansion of existing natural gas infrastructure) are included in the construction analysis in Section 3.2, Air Quality; Section 3.6, Greenhouse Gas Emissions and Energy; Section 3.10, Noise; and Section 3.14, Transportation. Construction related to extension and expansion of existing natural gas infrastructure would represent a potentially significant impact.

However, with implementation of MM AIR-2, MM AIR-3, MM GHG-1, MM NOI-1, and MM TRANS-1a, impacts related to need for relocation or construction of new or expanded natural gas facilities would be reduced to less than significant. Therefore, construction impacts related to planned construction, expansion, and relocation of electrical infrastructure facilities would be less than significant with mitigation.

Telecommunication

Civic Project and Residential Project

Demand

Implementation of the proposed plan would use telecommunications (phone and internet) for construction field services (office trailers). Implementation of the proposed plan would not result in a substantial demand for service. Therefore, construction impacts related to need for new telecommunications infrastructure facilities as a result of telecommunications demand would be less than significant.

Infrastructure Construction, Expansion, or Relocation

Implementation of the proposed plan would include new connections from existing telecommunications lines along Oak Park Boulevard and Monticello Avenue to the proposed residential, library, and park uses. The existing overhead telecommunications lines that run west of Monticello Avenue would be removed and placed underground in the same location during construction. Potential construction impacts related to Implementation of the proposed plan (and associated expansion of existing telecommunications infrastructure) are included in the construction analysis in Section 3.2, Air Quality; Section 3.6, Greenhouse Gas Emissions and Energy; Section 3.10, Noise; and Section 3.14, Transportation. Impacts related to extension and expansion of existing telecommunications infrastructure would represent a potentially significant impact.

However, with implementation of MM AIR-2, MM AIR-3, MM GHG-1, MM NOI-1, and MM TRANS-1a, impacts related to need for relocation or construction of new or expanded telecommunications facilities would be reduced to less than significant. Therefore, construction impacts related to planned construction, expansion, and relocation of telecommunications infrastructure facilities would be less than significant with mitigation.

Operation

Water

Civic Project and Residential Project

Demand and Consumption

The UWMP determined that the CCWD has sufficient water supplies to accommodate the anticipated population growth throughout its service area, including the plan area. In addition, this plan area is located in an urbanized area that is currently served by the CCWD and accounted for in the WSA as described in Chapter 7 of the UWMP. Furthermore, the Pleasant Hill 2003 General Plan EIR determined that buildout of the Pleasant Hill 2003 General Plan would result in a water use increase of approximately 300 AFY.[30] As discussed under Impact UTIL-2, there would be sufficient water supplies available to serve the Civic Project and Residential Project and reasonably foreseeable future development during normal, dry and multiple dry years. In compliance with the California Fire Code, Part 9 of the California Building Standards Code (CBC), the Civic Project and Residential Project would follow standards for fire safety such as fire flow requirements for buildings, fire hydrant location and distribution criteria. Therefore, operational impacts related to need for new water supply infrastructure facilities as a result of water demand would be less than significant.

Infrastructure and Treatment Facilities Capacity

Implementation of the proposed plan would include new water main along Monticello Avenue with connections from existing water lines in Oak Park Boulevard and Santa Barbara Road to the proposed residential, library, and park uses. As such, at operation the Civic Project and Residential Project would not require the relocation or expansion of water infrastructure or treatment facilities, because it would be served by the CCWD with adequate water supplies during normal, dry, and multiple dry years. As discussed under Impact UTIL-2, the Civic Project and Residential Project would represent less than one percent of the projected water demand for the CCWD's service area. In addition, the total capacity of the Ralph D. Bollman WTP is 75 mgd and the estimated water demand associated with the Civic Project and Residential Project would be less than one percent of the WTP's treatment capacity. As such, there would be no operational need related to extension and expansion of existing water infrastructure and treatment facilities. Therefore, operational impacts related to adequacy and capacity of water infrastructure facilities would be less than significant.

Wastewater

Civic Project and Residential Project

Generation

At operation, the Civic Project and Residential Project would result in an increase in wastewater generation compared to existing conditions. As discussed under Impact UTIL-3, there would be sufficient wastewater capacity available to serve the Civic Project and Residential Project. Therefore, operational impacts related to need for new wastewater supply infrastructure facilities as a result of wastewater demand would be less than significant.

Infrastructure and Treatment Facilities Capacity

The Civic Project and Residential Project would include new connections from existing waste water lines in Oak Park Boulevard and within the Civic Project site. Central San would serve the Civic

[30] City of Pleasant Hill. Pleasant Hill 2003 General Plan EIR, page 84. January 2003.

Project and Residential Project. As discussed under Impact UTIL-3, the Central San Treatment Facility contains sufficient capacity to serve wastewater treatment needs of the Civic Project and Residential Project, and a new or expanded wastewater treatment facility would not be required. Therefore, operational impacts related to need for new wastewater supply infrastructure facilities as a result of wastewater generation would be less than significant.

Stormwater

Civic Project and Residential Project

Generation

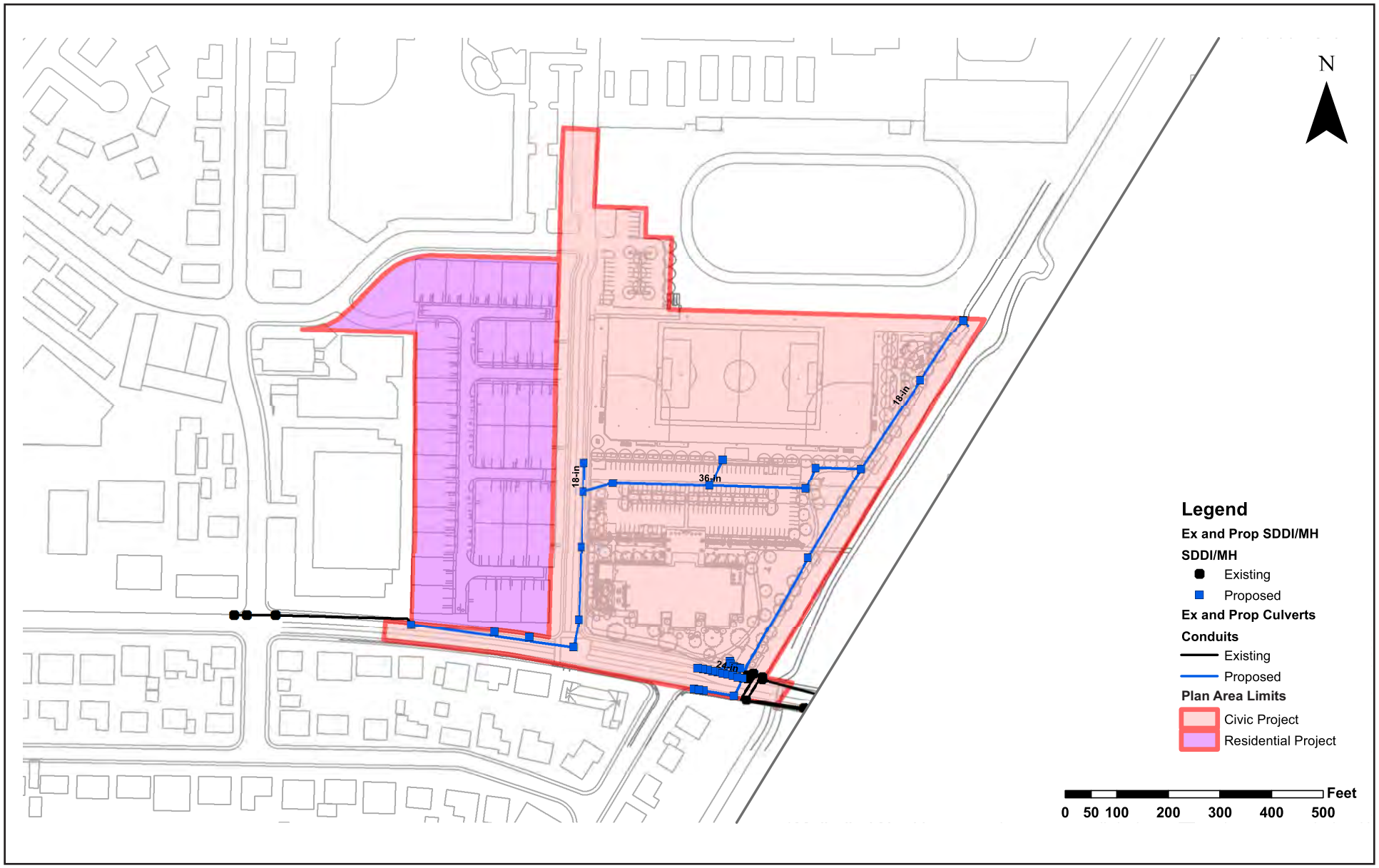
The Civic Project and Residential Project would incorporate BMPs and Low Impact Development (LIDs) to comply with C.3 requirements and the City of Pleasant Hill Clean Water Program and Stormwater Runoff Pollution Control Ordinance Code, thereby ensuring that there would be no net increase in stormwater runoff. Therefore, stormwater generated by operation of the Civic Project and Residential Project would not exceed the capacity of existing or planned stormwater drainage and storage systems. Therefore, operational impacts related to need for new stormwater infrastructure facilities as a result of stormwater generation would be less than significant.

Civic Project

Infrastructure and Treatment Facilities Capacity

As discussed under above under "Construction," the Civic Project includes planned improvements to the storm drainage system across the Civic Project site, which would enhance the existing system through upsizing of drainage lines to better accommodate storm flows under existing and future conditions as described in Section 3.8, Hydrology and Water Quality, upgrading of existing outfalls in Grayson Creek, and provision of rip rap at the outfalls for energy dissipation. The planned improvements would minimize flooding that currently occurs across the Civic Project site during extreme rain events.

As shown in Exhibit 3.15-1 and Exhibit 3.15-2, 36-inch line would replace the existing 24-inch storm drain in Oak Park Boulevard. The Civic Project would not require the relocation or expansion of stormwater infrastructure, because the City of Pleasant Hill Clean Water Program infrastructure would provide adequate stormwater infrastructure capacity. As discussed under Impact HYD-3, the existing and planned stormwater systems and basins would contain sufficient capacity to serve stormwater treatment needs of the Civic Project, and additional stormwater facilities would not be required. Therefore, operational impacts related to need for new stormwater supply infrastructure facilities as a result of stormwater generation would be less than significant.



Source: WRECO, 2019.

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Exhibit 3.15-2
Proposed Storm Drainage and Detention System

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Residential Project

Infrastructure and Treatment Facilities Capacity

As the Residential Project is designed to ensure no net increase in stormwater runoff, at operation the Residential Project would not require the relocation or expansion of stormwater infrastructure, because it would be served by the City of Pleasant Hill Clean Water Program with adequate stormwater infrastructure capacity. Therefore, operational impacts related to need for new stormwater supply infrastructure facilities as a result of stormwater generation would be less than significant.

Electricity

Civic Project and Residential Project

Demand and Consumption

At operation, PG&E would provide electricity to the Civic Project and Residential Project for lighting, appliances, and other associated uses. As discussed under Impact GHG-3, the Civic Project and Residential Project would comply with the State's Title 24 energy efficiency standards. These standards contain advanced energy efficiency standards and would ensure that the Civic Project and Residential Project would not require significant or unplanned new electrical sources. Therefore, operational impacts related to need for new electrical infrastructure facilities as a result of electricity demand would be less than significant.

Infrastructure Facilities Capacity

The Civic Project and Residential Project would include new connections from existing electrical lines in Oak Park Boulevard and Monticello Avenue. As such, at operation the Civic Project and Residential Project would not require the relocation or expansion of electrical infrastructure, because it would be served by PG&E with adequate electrical supplies. Therefore, operational impacts related to adequacy and capacity of electrical infrastructure facilities would be less than significant.

Natural Gas

Civic Project and Residential Project

Demand and Consumption

The Civic Project and Residential Project could utilize natural gas for heating provided by PG&E. As discussed under Impact GHG-3, the Civic Project and Residential Project would be designed and constructed consistent with the State's Title 24 energy efficiency standards. These standards would ensure that the Civic Project and Residential Project would not require significant or unplanned new natural gas sources. Therefore, operational impacts related to need for new natural gas infrastructure facilities would be less than significant.

Infrastructure Facilities Capacity

The Civic Project and Residential Project would include new connections from existing electrical lines in Oak Park Boulevard and Monticello Avenue. As such, at operation the Civic Project and Residential Project would not require the relocation or expansion of electrical infrastructure, because they would be served by PG&E with adequate electrical supplies. Therefore, operational impacts related to adequacy and capacity of electrical infrastructure facilities would be less than significant.

Telecommunications

Civic Project and Residential Project

Demand

At operation, the Civic Project and Residential Project would increase demand for internet and telephone services provided by local telecommunications providers. The library, park district, and future residents would coordinate with telecommunication providers in order to provide service. Therefore, operational impacts related to need for new telecommunications infrastructure facilities as a result of telecommunications demand would be less than significant.

Infrastructure Facilities Capacity

The plan area is located in an urbanized area of Pleasant Hill where existing telecommunications providers already offer internet and telephone services. The Civic Project and Residential Project would include new connections from existing telecommunications lines along Oak Park Boulevard and Monticello Avenue. As such, at operation the Civic Project and Residential Project would not require the relocation or expansion of telecommunications infrastructure, because it would be served by local telecommunications providers with adequate telecommunications capacity and access. Therefore, operational impacts related to access and capacity of telecommunications infrastructure facilities would be less than significant.

Level of Significance Before Mitigation

Potentially Significant (Civic Project and Residential Project)

Mitigation Measures

Implement MM AIR-2, MM AIR-3, MM GHG-1, MM NOI-1, and MM TRANS-1a (Civic Project and Residential Project)

Level of Significance After Mitigation

Less Than Significant with Mitigation (Civic Project and Residential Project)

Water Supply

Impact UTIL-2:	**The proposed plan would have sufficient water supplies available to serve the proposed plan and reasonably foreseeable future development during normal, dry, and multiple dry years.**

Construction

Civic Project and Residential Project

Impacts related to water supplies are limited to operational impacts. No respective construction impacts would occur.

Operation

Civic Project

Potable and recycled water would serve the park. A new 8-inch main installed in Monticello Avenue would provide potable water and would connect to the existing 10-inch main in Oak Park Boulevard

and at Santa Barbara Road. Potable water would be used for the restrooms and drinking fountains. New low-volume toilets use an estimated 1.28 gallons per flush or less.[31]

A new 10-inch recycled water main in Monticello Avenue would provide recycled water service to the Civic Project. This main would connect to the existing 10-inch recycled water line in the Pleasant Oaks Park. The park would utilize 3,583,533 gallons per square foot per year of recycled water. The combination of low-flush toilets and recycled water would reduce impacts to potable water.

The proposed library would connect to existing municipal water lines in Oak Park Boulevard. A new 8-inch main would provide potable water service to the library. An existing 10-inch recycled water line would extend south from the Pleasant Oaks Park. A new connection to service the proposed library would be established approximately 120 feet north of Oak Park Boulevard. The City estimates that the library would demand a peak-flow of 45 gallons per minute (gpm). As a result, the proposed library would result in an estimated daily water demand of 21,600 gallons and an annual water demand of 17.2 AFY.

The 2015 UWMP indicates that the total planned water supply in 2020 is anticipated to be 228,000 acre-feet.[32] Implementation of the Civic Project and Residential Project would result in a daily water demand of 34,369 gallons and an annual water demand of 38.5 acre-feet, representing less than one percent of the water supply totals forecasted for year 2020. Additionally, the UWMP determined that the CCWD would have adequate water supplies to serve all customers in its service area during normal, dry, and multiple dry years.[33] Accordingly, adequate water supplies would be available from existing and planned supplies. Therefore, impacts related to sufficient water supply availability for the Civic Project and Residential Project would be less than significant.

Residential Project

The CCWD would provide water supply to the Residential Project. According to the California Department of Finance, the City of Pleasant Hill has an average of 2.50 persons per household. Using this figure as a multiplier, the proposed 34 residential units and 7 accessory dwelling units on this property would add approximately 103 persons to the population of the City of Pleasant Hill. The 2015 UWMP sets forth 185 gallons per capita daily as the 10-year baseline average water consumption rate. Multiplying the 185-gallons—per-capita rate by approximately 103 persons yields a daily water consumption value of 19,055 gallons. On an annual basis, this equates to 21.3 acre-feet water demand for this property. Therefore, impacts related to water supply availability would be less than significant.

Level of Significance

Less Than Significant (Civic Project and Residential Project)

[31] United States Environmental Protection Agency (EPA). Residential Toilets. Website: https://www.epa.gov/watersense/residential-toilets. Accessed February 27, 2019.
[32] Contra Costa Water District (CCWD). 2015. Urban Water Management Plan.
[33] Contra Costa Water District (CCWD). 2015. UWMP. Page 7-10. June 2016.

Wastewater Treatment Capacity

Impact UTIL-3: **The proposed plan would not result in a determination by the wastewater treatment provider which serves or may serve the plan area that it has adequate capacity to serve the proposed plan's projected demand in addition to the provider's existing commitments.**

Construction

Civic Project and Residential Project

Impacts related to adequate wastewater treatment capacity are limited to operational impacts. No respective construction impacts would occur.

Operation

Implementation of the proposed plan could have a significant impact if the wastewater treatment provider would not have sufficient capacity to serve the proposed new uses in addition to the provider's existing commitments.

Civic Project

The park's public restroom would connect to the existing 10-inch via a 6-inch sewer line just south of the proposed parking lot. These restrooms would be used infrequently and only during operational hours of the proposed park. As the proposed park would not result in permanent, only daytime, population, it would not be expected to result in a substantial increase in wastewater generation from park restrooms use. As a result, the proposed park restrooms would not result in a need for new or expanded wastewater facilities.

The proposed library would connect to an existing 10-inch municipal sewer line that runs north-to-south through the eastern side of the Civic Project site. Library restrooms would be used exclusively by library patrons and only during operational hours. As the proposed library use would not result in permanent, only daytime, population, it would not be expected to result in a substantial increase in wastewater generation from library restrooms use. As a result, the proposed library would not result in a need for new or expanded wastewater facilities.

Residential Project

Using a standard industry assumption that wastewater generation represents 95 percent of domestic water use, the Residential Project would generate 14,587 gallons of effluent on a daily basis. The wastewater would be treated at the Central San Treatment Plant, which has a treatment capacity of approximately 54 mgd and approximately 270 mgd of wet-weather flow.[34] The Central San Treatment Plant currently treats an average daily dry-weather flow of 34 mgd and estimates to treat 41 average daily dry-weather flow by 2035. As a result, the Residential Project's estimated wastewater generation would be less than one percent of the total capacity of the Central San Treatment Plant. Therefore, the Residential Project would not result in a need for new or expanded wastewater facilities, and impacts related to wastewater treatment capacity on this property would be less than significant.

[34] Central Contra Costa County Sanitary District (Central San). 2017. Comprehensive Wastewater Master Plan.

Level of Significance

Less Than Significant (Civic Project and Residential Project)

Landfill Capacity and Solid Waste Reduction Goals Consistency

Impact UTIL-4:	**The proposed plan would not generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals.**

Construction

Civic Project and Residential Project

During the construction phases, the Residential Project would result in the removal of the existing library and offices, surface parking lots, and landscaping, while the Civic Project would result in the removal of existing landscaping in support of site preparation for the new library and athletic fields. In total, approximately 159,000 square feet of impervious surface and 59,000 square feet of pervious surface for a total of 218,000 square feet would be removed. Consistent with the Pleasant Hill Municipal Code, Chapter 14.40, the contractors for the Civic Project and Residential Project would each develop and implement a WMP that would disclose the following:

- The total square footage of the area to be constructed or demolished;
- A list of the debris material types to be generated;
- The identity of the vendor(s) or facility(ies) that the applicant proposes to use to collect or receive that material; and
- An acknowledgement of responsibility that the applicant understands the consequences of not meeting the 50 percent diversion requirement and that the applicant is responsible for the actions of their contractors or other agents with regard to the diversion requirement.

Implementation of the WMP would be a condition of approval for the Civic Project and Residential Project and as such would not require mitigation. Therefore, construction of the Civic Project and Residential Project would not generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals. Therefore, construction impacts related to landfill capacity and solid waste reduction goals consistency would be less than significant.

Operation

Civic Project and Residential Project

RecycleSmart would provide operational solid waste collection services for the Civic Project and Residential Project. Daily and annual operational solid waste generation estimates are provided in Table 3.15-3. Operational solid waste generation was calculated using standard waste generation rates provided by CalRecycle.

Table 3.15-3: Operational Solid Waste Generation-By Project

Activity	Size	Waste Generation Rate	Waste Generation		
			Daily Total (tons)	Annual Total (tons)	Cubic Yards
Residential Project	34 residential units plus 7 accessory dwelling units	10 pounds/dwelling/day	0.205	74.83	104.76
Civic Project (Library)	25,000-square-feet[1]	.007 pounds/square feet/day	0.088	32.12	44.97
Civic Project (Park)	95,160 square feet[2]	.007 pounds/square feet/day	0.33	121.57	86.83
			Total	228.52	236.56

Notes:
1 ton = 2,000 pounds; 1 ton = 1.4 cubic yards
[1] The proposed library would be approximately 23,900 square feet. To provide a conservative estimate, this EIR assumed that the library is 25,000 square feet.
[2] This number assumes 93,000 square feet for the fields (ball fields, soccer field, and grass area) and 2,160 square feet for the three bocce courts.
Source: CalRecycle. 2015. Estimated Solid Waste Generation. Website: https://www2.calrecycle.ca.gov/wastecharacterization/general/rates. Accessed December 17, 2018.

The Civic Project and Residential Project would generate an estimated 228.52 tons of waste a year at operation, representing less than one percent of the total capacity of ACME and Keller Canyon Landfills and would be served by a landfill that contains sufficient capacity to serve the Civic Project and Residential Project. Therefore, operational impacts related to landfill capacity and solid waste reduction goals consistency would be less than significant.

Level of Significance

Less Than Significant (Civic Project and Residential Project)

Solid Waste Regulations Consistency

Impact UTIL-5: **The proposed plan would comply with federal, State, and local management and reduction statutes and regulations related to solid waste.**

Construction

Civic Project and Residential Project

The Civic Project and Residential Project would comply with Chapter 14.40 of the Pleasant Hill Municipal Code related to solid waste reduction and recycling measures. Compliance with this regulation would ensure compliance with the California Integrated Waste Management Act by ensuring construction waste is transferred to facilities that can adequately recycle solid waste. As a condition of approval, Chapter 14.40 of the Pleasant Hill Municipal Code would require the Civic Project and Residential Project to implement a WMP, ensuring compliance with the existing Pleasant Hill Municipal Code and the California Integrated Waste Management Act. Therefore, impacts related to solid waste regulations consistency are less than significant.

Operation

Civic Project and Residential Project

Operation of the Civic Project and Residential Project would be required to comply with applicable State and local regulations related to solid waste such as the California Integrated Waste Management Act and Chapter 13.10 of the Pleasant Hill Municipal Code. Adherence to the Pleasant Hill Municipal Code would ensure sufficient solid waste collection and transportation is available, and would ensure that disposal sites contain sufficient capacity through permit review and inspections, and recycling programs are implemented in order to divert waste. As such, operation of the Civic Project and Residential Project would not impede the ability of the City to meet waste diversion requirements or cause the City to violate State and local statutes and regulations related to solid waste. Therefore, with compliance with existing State and City law requiring recycling and waste diversion from landfill requirements, operational impacts related to solid waste regulations consistency would be less than significant.

Level of Significance

Less Than Significant (Civic Project and Residential Project)

3.15.5 - Cumulative Impacts

Water

The geographic scope of the cumulative potable water analysis is the service area of the CCWD, which provides potable water to residents and businesses within the County, including the city of Pleasant Hill. The CCWD considered the existing capacity and future demand for capacity to determine needed updates to water facilities. In the course of preparing the UWMP, CCWD estimated water demand of future development in the service area and forecast the needed facility upgrades. The forecast included supply facility upgrades needed to accommodate growth in the City and County.

Cumulative projects listed in Table 3-1 (refer to Chapter 3, Environmental Impact Analysis, Table 3-1, Cumulative Projects) are located within the areas of the City of Pleasant Hill, City of Walnut Creek, and on Caltrans-owned land within 5 miles of the plan area. As discussed under Impact UTIL-2, the CCWD prepared a UWMP that considered the buildout potential across the County. The UWMP determined that the CCWD would be able to provide adequate water supplies to the County and plan area during normal and dry years. In addition, cumulative projects listed in Table 3-1, would be required to comply with provisions of the respective Municipal Code and California Green Building Code related to water conservation. Therefore, the Civic Project and Residential Project, in conjunction with other projects in the City of Pleasant Hill, would result in a less than significant cumulative impact related to water supply and treatment.

Wastewater

The geographic scope of the cumulative wastewater analysis is the service area of Central San, which provides wastewater collection and treatment services for County contracted cities, residents, and business in the City of Pleasant Hill.

Central San considered the existing capacity and future demand for capacity to determine needed updates to wastewater and recycled water facilities. In the course of preparing the Comprehensive Wastewater Master Plan, Central San estimated wastewater generated from future development in the service area and forecast the needed facility upgrades. The forecast included treatment facility upgrades needed to accommodate growth in the service area and maintain compliance with applicable regulatory standards for wastewater treatment and discharge.

Cumulative projects listed in Table 3-1 are located in the Central San's service area and would generate volumes of wastewater. Central San has anticipated development in the City of Pleasant Hill, as described and estimated in the Comprehensive Wastewater Master Plan, and determined that capacity would exist to service the demand for wastewater treatment facilities. Therefore, the Civic Project and Residential Project, in conjunction with other existing, planned, and probable future projects in the Central San's service area would result in a less than significant cumulative impact related to wastewater generation and treatment.

Storm Drainage

The geographic scope of the cumulative analysis of storm drainage is the plan area vicinity, consisting of areas that drain to the Contra Costa County Flood Control and Water Conservation District's storm drainage system and to Suisun Bay.

Cumulative projects listed in Table 3-1 predominantly consist of residential, commercial, and government uses. The cumulative projects are located in urban areas that would be served by existing municipal storm drainage systems. Consistent with measures in the Pleasant Hill Municipal Code, all development in the City would incorporate a stormwater control plan and stormwater collection systems into the development that would in turn reduce the volume and velocity of stormwater runoff that cumulative projects would generate. Therefore, the Civic Project and Residential Project, in conjunction with other existing, planned, and probable future projects, would result in a less than significant cumulative impact related to storm drainage. (See also Section 3.8, Hydrology and Water Quality).

Solid Waste

The geographic scope of the cumulative solid waste analysis is the service area of Central San, which operates solid waste landfills and oversees regional waste diversion programs. Solid waste and recycling collection services would be provided by RecycleSmart.

Central San anticipates it would be able to absorb future growth. Cumulative projects listed in Table 3-1 consist predominantly of residential, commercial, and government use. However, as with the surrounding areas, new cumulative development (residential and non-residential) would increase demand on solid waste facilities to receive, process, and store solid waste.

The Keller Canyon Landfill has a total permitted capacity 75,018,280 cubic yards with a remaining capacity of 63,408,410 cubic yards. In addition, the ACME Landfill has a total permitted capacity 6,195,000 cubic yards with a remaining capacity of 506,590 cubic yards and a closure date of July 1, 2021. The anticipated waste volume of development in the plan area represents less than one

percent of the landfill's permitted daily capacity. Existing solid waste facilities provide sufficient capacity to serve all development anticipated in the City, as well as existing, planned, and probable future land uses in the City for the foreseeable future. Therefore, the Civic Project and Residential Project, in conjunction with other future projects, would result in a less than significant cumulative impact related to solid waste generation and landfill capacity.

Level of Cumulative Significance

Less Than Significant (Civic Project and Residential Project)

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