

Tri-Valley Sikh Center

Draft Initial Study and Mitigated Negative Declaration

Project File Number: PLN2015-00082



December 2015

*Planning Department
County of Alameda
224 West Winton Ave.
Hayward, CA 94554*

Tri-Valley Sikh Center

Initial Study/Mitigated Negative Declaration

Project File #: PLN2015-00082

Prepared for:

Alameda County Planning Division
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December 18, 2015

MITIGATED NEGATIVE DECLARATION

Project: Tri-Valley Sikh Center

Lead Agency:

Alameda County

PROJECT DESCRIPTION

This Mitigated Negative Declaration (MND), supported by the attached Initial Study (IS), evaluates the environmental effects of a proposed Sikh Center at an existing house in eastern Alameda County, California. The applicant, the Tri-Valley Sikh Center, is proposing the alterations to an existing 5780 square foot (sq. ft.) building on the northeast corner of the 9.85-acre property. The building's primary function would be to house religious, educational, and social activities for the rapidly growing Tri-Valley Sikh community. The project also would include a 27-space gravel parking area and widening the existing access road. The 1200-sq. ft. caretaker's house on the property would be unchanged.

Alameda County is the lead agency for this project and has prepared this MND.

FINDINGS

An IS has been prepared to assess the projects potential effects on the environment and the significance of those effects. Based on the Initial Study, it has been determined that the proposed project would not have any significant effects on the environment once mitigation measures are implemented. This conclusion is supported by the following findings:

1. The proposed project would have no impact related to agricultural and forest resources, land use, mineral resources, population and housing, and recreation.
2. The proposed project would have a less-than-significant impact on aesthetics, air quality, geology and soils, greenhouse gases, hazards and hazardous materials, hydrology and water quality, noise, and transportation and traffic.
3. Mitigation is required to reduce potentially significant impacts related to biological resources, cultural resources, public services, and utilities/service systems. Mitigation measures would clearly reduce all significant impacts to a less-than-significant level. The applicant has agreed to implement all required mitigation.

Following are the mitigation measures that will be implemented by the applicant to avoid or minimize environmental impacts.

Mitigation Measure BIO-1: If construction would commence anytime during the nesting/breeding season of native bird species potentially nesting on or near the site (typically February through August in the project region), a pre-construction survey for

nesting birds shall be conducted. The survey shall be conducted by a qualified biologist within 14 days of the commencement of construction activities that would occur during the nesting/breeding season. The intent of the survey shall be to determine if active nests of burrowing owls or other bird species protected by the Migratory Bird Treaty Act and/or the California Fish and Game Code are present within the construction zone or within 300 feet of the construction zone. The survey area shall include all trees and shrubs, as well as fallow fields (which could be utilized by burrowing owls) in the construction area and a surrounding 300 feet area (where access is possible). The surveys shall be timed such that the last survey is concluded no more than two weeks prior to initiation of construction or tree removal. If ground disturbance activities are delayed following a survey, then an additional pre-construction survey shall be conducted such that no more than two weeks will have elapsed between the last survey and the commencement of ground disturbance activities.

If active nests are found in areas that could be directly affected or are within 300 feet of construction and would be subject to prolonged construction-related noise, a no-disturbance buffer zone shall be created around active nests during the breeding season or until a qualified biologist determines that all young have fledged. The size of the buffer zones and types of construction activities restricted within them will be determined by taking into account factors such as the following:

- Noise and human disturbance levels at the construction site at the time of the survey and the noise and disturbance expected during the construction activity;
- Distance and amount of vegetation or other screening between the construction site and the nest; and
- Sensitivity of individual nesting species and behaviors of the nesting birds.

Mitigation Measure CUL-1: If an inadvertent discovery of cultural materials (e.g., animal bone, unusual amounts of shell, ceramics, glass, etc.) is made during project-related ground disturbing activities, any ground disturbance in the area of the find shall be halted and a qualified professional archaeologist shall be notified regarding the discovery. The archaeologist shall determine whether the resource is potentially significant in accordance with the standards of the National Register of Historic Places (NRHP) or the California Register of Historical Resources (CRHR) and develop appropriate mitigation. Mitigation may include, but not necessarily be limited to, in-field documentation, archival research, archaeological testing, data recovery excavations or recordation.

Mitigation Measure CUL-2: In accordance with the California Health and Safety Code, if human remains are uncovered during ground-disturbing activities, potentially damaging excavation in the area of the burial shall be halted and the Alameda County Coroner and a professional archaeologist shall be contacted to determine the nature and extent of the remains. The coroner is required to examine all discoveries of human remains within 48 hours of receiving notice of a discovery on private or state lands (Health and Safety Code,

Section 7050.5[b]). If the coroner determines that the remains are those of a Native American, he or she must contact the Native American Heritage Commission (NAHC) by phone within 24 hours of making that determination (Health and Safety Code, Section 7050[c]). If the remains are determined to be those of a Native American, then the following shall occur:

- (a) The State Historic Preservation Office (SHPO), the construction contractor, an archaeologist, and the NAHC- designated Most Likely Descendant (MLD) shall determine the ultimate treatment and disposition of the remains and take appropriate steps to ensure that additional human interments are not disturbed. The responsibilities for acting upon notification of a discovery of Native American human remains are identified in Section 5097.9 of the California Public Resources Code.
- (b) The SHPO shall ensure that the immediate vicinity (according to generally accepted cultural or archaeological standards and practices) is not damaged or disturbed by further development activity until consultation with the MLD has taken place. The MLD will have 48 hours to complete a site inspection and make recommendations after being granted access to the site. A range of possible treatments for the remains, including nondestructive removal and analysis, preservation in place, relinquishment of the remains and associated items to the descendants, or other culturally appropriate treatment may be discussed. Assembly Bill (AB) 2641 suggests that the concerned parties may extend discussions beyond the initial 48 hours to allow for the discovery of additional remains. AB 2641(e) includes a list of site protection measures and states that the County will implement one or more of the following measures:
 1. record the site with the NAHC or the appropriate Information Center,
 2. utilize an open-space or conservation zoning designation or easement, and/or
 3. record a document with the County in which the property is located.
- (c) The applicant or their authorized representative shall rebury the Native American human remains and associated grave goods with appropriate dignity on the property in a location not subject to further subsurface disturbance if the NAHC is unable to identify a MLD, or if the MLD fails to make a recommendation within 48 hours after being granted access to the site. The County may also reinter the remains in a location not subject to further disturbance if he/she rejects the recommendation of the MLD, and mediation by the NAHC fails to provide measures acceptable to the County.

Mitigation Measure UTIL-1: The following requirements shall be met by the project applicant:

1. Alameda County Environmental Health Department shall review and approve the use of the OWTS and provides oversight during its operation and maintenance;

2. No wastewater disposal, other than that specifically approved herewith, shall be allowed without prior approval by the Zone 7 Water Agency; and
3. When a public sewer is extended to within 200 feet, the OWTS shall be abandoned and all building sewers shall be connected to the public sewer.

AGREEMENT BY PROJECT SPONSOR

Applicant, whose name is undersigned, understands the mitigation measures set forth above and agrees to be bound by them if they are adopted as a result of project approval.

 FOR TRI-VALLEY SIKH CENTER Dec 17, 2015
Applicant's Signature Date

JASWANT SINGH GILL FOR T.V.S.C.
Applicant's Printed Name

Questions or comments regarding this Mitigated Negative Declaration and Initial Study may be addressed to:

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After comments are received from the public and reviewing agencies, the County may (1) adopt the MND and approve the proposed project; (2) undertake additional environmental studies; or (3) disapprove the project. If the project is approved, the applicant may proceed with detailed design and construction.

LEAD AGENCY DETERMINATION

On the basis of this initial study:

I find the proposed project could not have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

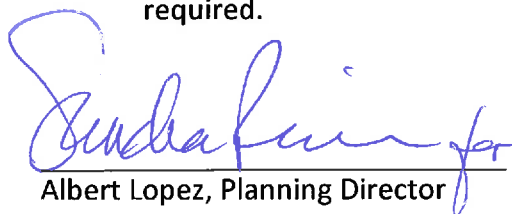
I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because the project proponent has agreed to revise the project to avoid any significant effect. A MITIGATED NEGATIVE DECLARATION will be prepared.

I find the proposed project could have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT (EIR) is required.

I find the proposed project could have a significant effect on the environment, but at least one effect has been (1) adequately analyzed in a previous document pursuant to applicable legal standards, and (2) addressed by mitigation measures based on the previous analysis as described in the attached initial study.

An EIR is required that analyzes only the effects that were not adequately addressed in a previous document.

I find that although the proposed project could have a significant effect on the environment, no further environmental analysis is required because all potentially significant effects have been (1) adequately analyzed in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (2) avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are included in the project, and further analysis is not required.


Albert Lopez, Planning Director

12/18/15
Date

Tri Valley Sikh Center
Initial Study

Alameda County Planning Department
December 18, 2015

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1. Introduction

1.1 INTRODUCTION AND REGULATORY GUIDANCE

This Initial Study (IS) has been prepared by the County of Alameda (County) to evaluate the potential environmental effects of remodeling an approximately 5,780 square foot (sq. ft.) house on a 9.85-acre property (project site) for religious, educational and social uses. The project site is located north of the City of Livermore in unincorporated Alameda County.

This document has been prepared in accordance with the California Environmental Quality Act (CEQA) (Public Resources Code Section 21000 et seq.) and the State CEQA Guidelines (California Code of Regulations Section 15000 et seq.). An IS is prepared by a lead agency to determine if a project may have a significant effect on the environment (State CEQA Guidelines Section 15063[a]), and thus to determine the appropriate environmental document. In accordance with State CEQA Guidelines Section 15070, a “public agency shall prepare...a proposed negative declaration or mitigated negative declaration...when: (a) The IS shows that there is no substantial evidence that the project may have a significant impact on the environment, or (b) The IS identifies potentially significant effects but revisions to the project plans or proposal are agreed to by the applicant and such revisions would reduce potentially significant effects to a less-than-significant level.” In this circumstance, the lead agency prepares a written statement describing its reasons for concluding that the proposed project would not have a significant effect on the environment and, therefore, does not require the preparation of an Environmental Impact Report (EIR). By contrast, an EIR is required when the project may have a significant environmental impact that cannot clearly be reduced to a less-than-significant effect by adoption of mitigation or by revisions in the project design.

1.2 PURPOSE OF THE INITIAL STUDY

As described in the environmental checklist (Chapter 3), the proposed project would not result in significant environmental impacts, after imposition of certain mitigation measures. This IS concludes that an MND is the appropriate document for compliance with the requirements of CEQA.

Under CEQA, the lead agency is the public agency with primary responsibility over approval of the proposed project. The County is the lead agency for the proposed project and has directed the preparation of an analysis that complies with CEQA.

The purpose of this document is to present to decision-makers and the public the environmental consequences of implementing the proposed project. An IS is required in support of an MND and is attached to the MND. This disclosure document is being made available to the public for review and comment. The MND (with the attached IS) is available for a 30-day public review.

Comments should be addressed to:

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After comments are received from the public and reviewing agencies, the County may (1) adopt the MND and approve the proposed project; (2) undertake additional environmental studies; or (3) disapprove the project. If the project is approved, the Applicant may proceed with detailed design and construction.

1.3 SUMMARY OF FINDINGS

Chapter 3 of this document contains the analysis and discussion of potential environmental impacts of the proposed project. Based on the issues evaluated in that chapter, it was determined that the proposed project would have no impact related to the following issue areas:

- ▲ Agriculture and Forest Resources
- ▲ Mineral Resources
- ▲ Population and Housing
- ▲ Recreation

Impacts of the proposed project would be less than significant for the following issue areas:

- ▲ Aesthetics
- ▲ Air Quality
- ▲ Greenhouse Gas
- ▲ Geology and Soils
- ▲ Hazards and Hazardous Materials
- ▲ Hydrology and Water Quality
- ▲ Land Use and Planning
- ▲ Noise
- ▲ Transportation and Traffic
- ▲ Public Services

Impacts of the proposed project for the following issue areas would be less than significant with the incorporation of the mitigation measures described in Chapter 3:

- ▲ Biological Resources
- ▲ Cultural Resources

▲ Utilities and Service Systems

1.4 ENVIRONMENTAL PERMITS

In addition to County approval, construction of the proposed project would result in disturbance of more than one acre of land. Therefore, a General National Pollutant Discharge Elimination System (NPDES) Permit for Construction Activities from the State Water Resources Control Board (SWRCB) would be required for the project.

1.5 DOCUMENT ORGANIZATION

This IS/ MND is organized as follows:

Chapter 1: Introduction. This chapter provides an introduction to the environmental review process. It describes the purpose and organization of this document as well as presents a summary of findings.

Chapter 2: Project Description and Background. This chapter describes the purpose of and need for the proposed project, identifies project objectives, and provides a detailed description of the proposed project.

Chapter 3: Environmental Checklist. This chapter presents an analysis of a range of environmental issues identified in the CEQA Environmental Checklist and determines if each issue would result in no impact, a less- than-significant impact, a less-than-significant impact with mitigation incorporated, or a potentially significant impact. If any impacts were determined to be potentially significant, an EIR would be required. For this project, however, none of the impacts were determined to be significant after implementation of recommended mitigation measures.

Chapter 4: References. This chapter lists the references used in preparation of this IS/MND.

Chapter 5: List of Preparers. This chapter identifies report preparers.

2. Project Description

2.1 INTRODUCTION

This Initial Study (IS) evaluates the environmental effects of a proposed Sikh Center at an existing house in eastern Alameda County, California. The applicant, the Tri-Valley Sikh Center, is proposing the alterations to an existing 5780 square foot (sq. ft.) building on the northeast corner of the 9.85-acre property. The building's primary function would be to house religious, educational, and social activities for the rapidly growing Tri-Valley Sikh community. The project also would include a 27-space gravel parking area and widening the existing access road. The 1200-sq. ft. caretaker's house on the property would be unchanged. No other changes would occur on the property.

2.2 BACKGROUND

The Tri-Valley Sikh Center was founded in 2013 by the Sikh congregation as a Nonprofit Religious Organization. The Center acquired the property in October 2014 and intends to use it for religious services for its members. The Tri-Valley Sikh Center (commonly known as a Gurudwara or "gateway to the guru") would be a place of worship for the Sikh population residing in the Livermore, Pleasanton, Dublin, Danville, San Ramon and other adjoining areas, and would replace the existing temporary place of worship at the Dublin Community Center.

The 9.85-acre property consists agricultural/open land with a 5780-sq. ft. single-story house and a smaller modular house on the northeast corner of the site, an open graded area southwest of the houses, and open agricultural lands. Portions of the property were previously (through 2014) used for poultry, strawberries, and bee-keeping. An existing well on the property provides the water supply, PG&E supplies electricity and an on-site propane gas tank serves the natural gas requirements.

The applicant is proposing the use of the existing house for religious services and the modular home as a priest residence. The project also would construct a 27-space gravel parking lot, and widen the unpaved access driveway. No changes to other portions of the site would occur.

2.3 PROJECT OBJECTIVES

Tri-Valley Sikh Center currently does not own any other property for conducting its services and as a result uses other rental facilities. The overall objective of the project is to provide a permanent, dedicated facility that would meet its current needs. Other objectives of the project are:

- Provide a building that has sufficient space for religious services and office space to meet existing operational needs.
- Renovate the existing building and make site improvements that avoid or minimize impacts to environment and its agricultural resources.

2.4 PROJECT LOCATION

The project site is located at 2089 North Livermore Avenue, in the Livermore Valley area of unincorporated Alameda County (See Figure 1). The site is located north of the City of Livermore, near the North Livermore Avenue ramps to Interstate 580. The existing house is in the northeast corner of the property. The parcel is surrounded by agriculture parcels on the north and east side whereas North Livermore Avenue and Interstate I-580 adjoin the property on west and south side respectively.

2.5 PROJECT CHARACTERISTICS

The applicant is proposing to remodel and re-purpose the existing house for religious services and social gatherings by the Tri-Valley Sikh Center. The scope of work includes making interior changes to existing house for compliance with California Building Code 2013, accessibility requirements and site improvements for parking, fire access, handicap parking, trash enclosure and an upgraded septic system. The proposed site plan is shown in Figures 2 and 3.

BUILDING FEATURES

The building is a single-story house with total usable area of 5780 square feet (sq. ft.). Approximately 1800 sq. ft. of this space would be used for religious services and other activities, and another 650 sq. ft. would be used as a kitchen for preparation of community meals. The remaining areas would be utilized as office space, restrooms, and multipurpose rooms. A dedicated meet-and-greet area of approximately 700 sq. ft. would be established in the southwest corner of the house. The proposed floor plan is shown on Figure 4.

The design and architecture of the building would remain unchanged. A 30-35 foot tall flag-pole would be erected near the main house on the property.

Modifications to the house would be made in order to comply with CBC 2013; ramps would be added to improve accessibility. Three bathrooms would be removed from the building to increase space for activity rooms, and new men's and women's restrooms would be added near the house entryway. The existing property is located in the Livermore Valley of unincorporated Alameda County. The existing house is in the northeast corner of the property. The project site is an approximate ten-acre parcel that is graded, undeveloped, and supports little to no vegetation.

PARKING AND ACCESS IMPROVEMENTS

The project would include a 27-space gravel-topped parking area. The driveway would be widened to 20 feet, requiring removal of a row of redwood trees; those trees would either be replanted or replaced following roadway widening. The roadway surface would remain permeable, except for the driveway portion nearest the house, which would be paved.

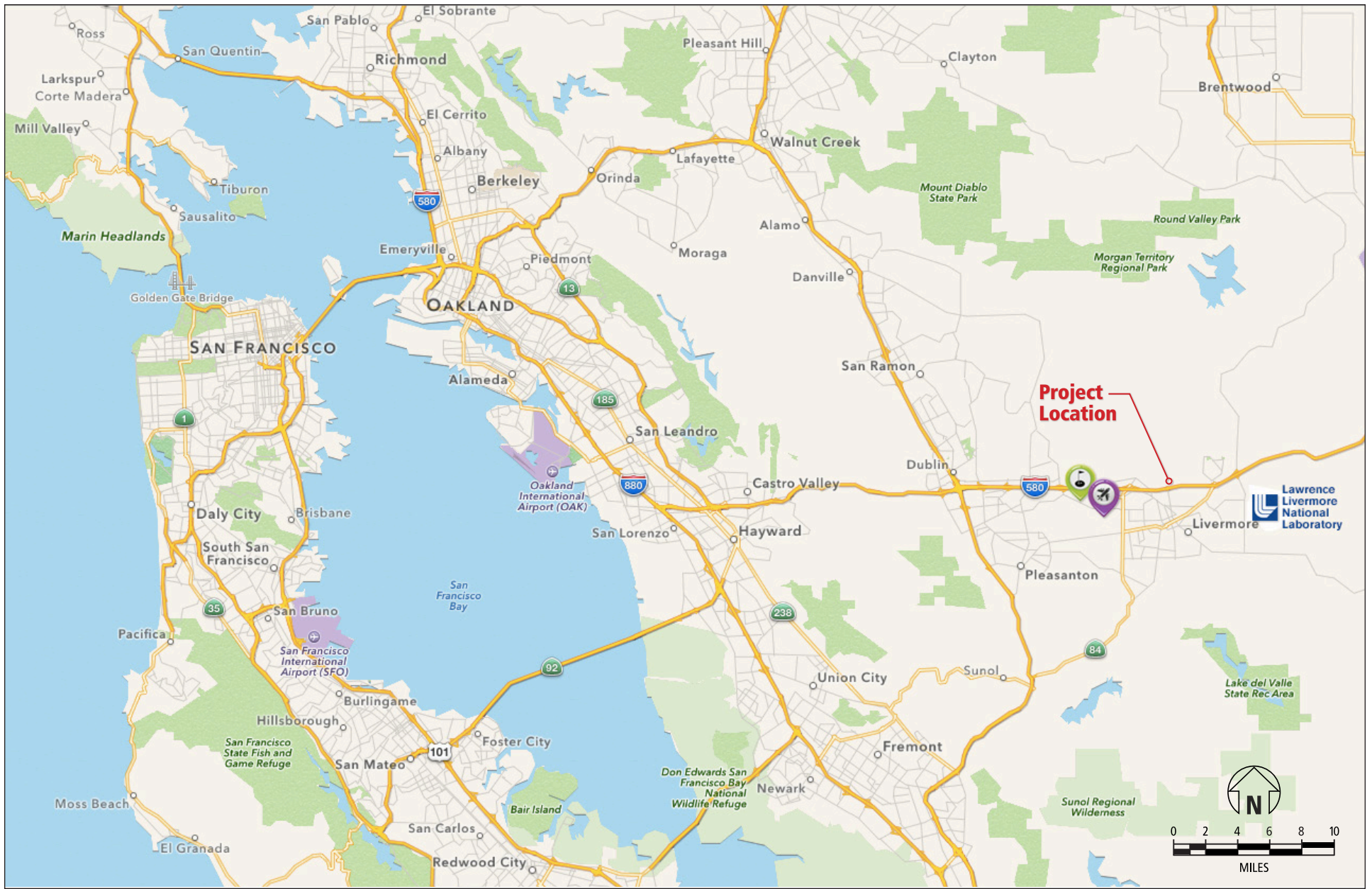


Figure 1
Project Location

Source: TomTom Maps



Figure 2
Site Plan

Source: BKBC Architects, Inc.

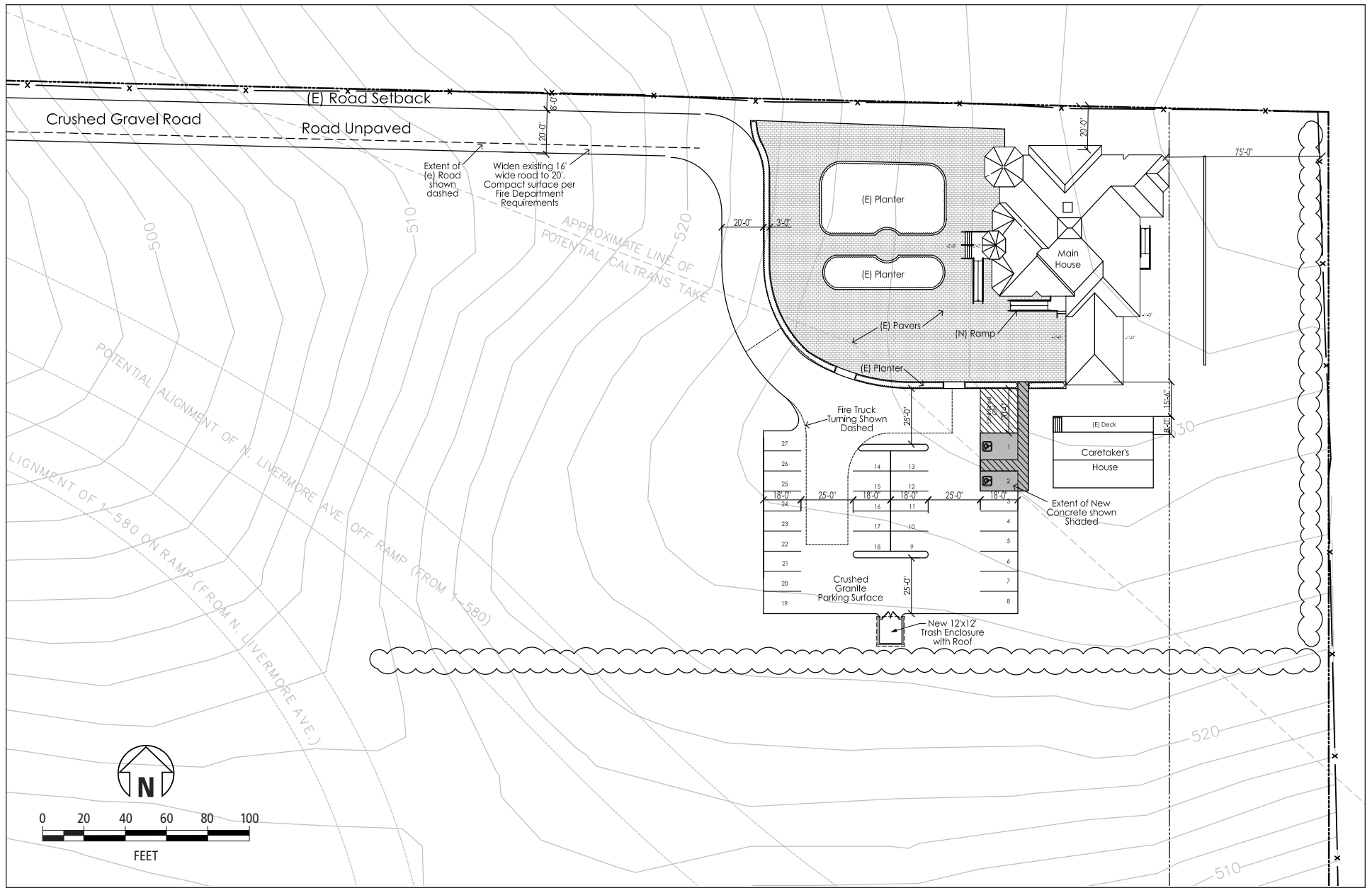


Figure 3
Proposed Development Plan

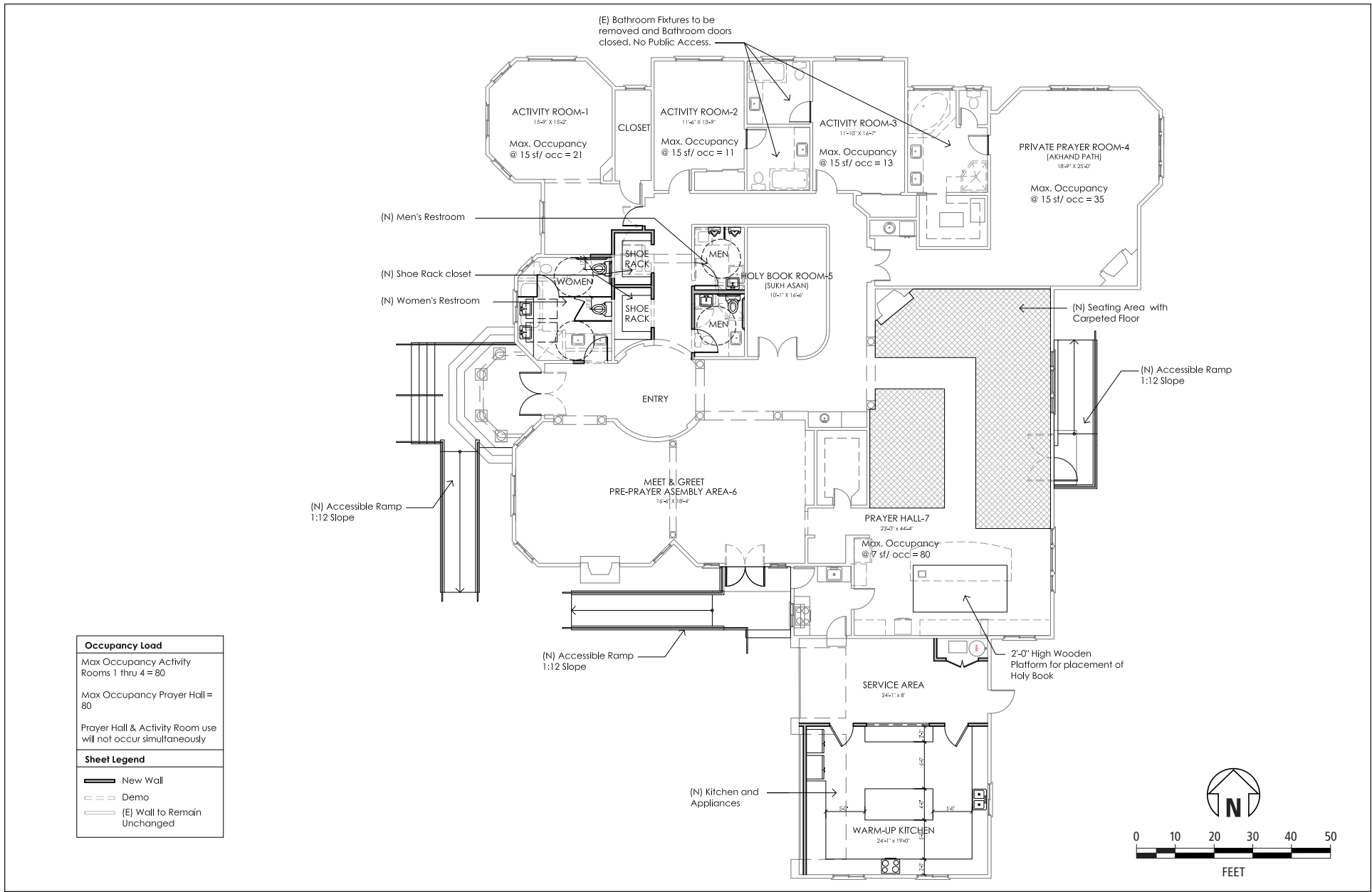


Figure 4
Floor Plan - Proposed Changes

STORMWATER DRAINAGE

Most stormwater generated within the developed footprint of existing house and modular home remains onsite and percolates to underlying soils. No new drainage improvements are proposed.

UTILITIES

All wastewater for the building would be handled by an improved septic system and leachfield at site, in compliance with Alameda County Department of Environmental Health (Health Services Agency) requirements. An existing well serves the domestic water needs of the property, and is proposed to serve the project uses. No changes are proposed for the water supply system. Pacific Gas and Electric Co. (PG&E) would continue to supply electricity and an on-site propane gas tank would continue to serve the heating requirements of the project.

2.6 PROJECT CONSTRUCTION

Construction of the proposed improvements is expected to last approximately two months with peak construction activities taking place over a period of two weeks. On average, 4-5 construction workers would be on the site on a daily basis with a maximum of 8 workers onsite during peak construction activities. The specific construction schedule is unknown at the time but all construction would take place during daytime hours (i.e., Monday-Friday 7:00 A.M. to 7:00 P.M. and Saturday and Sunday 8:00 A.M. to 5:00 P.M.). No nighttime construction activities are proposed.

Construction would include typical activities such as demolition, carpentry, drywall, electrical, plumbing, grading, and paving. Construction activities would disturb approximately one half-acre of the site.

2.7 PROJECT OPERATIONS

The proposed Sikh Center would have services and Sunday school every Sunday. A maximum of about 100 people (approximately 60-70 adults and 30-40 children) would use the facility at various times from 10 AM, to about 2:30 PM. Except for the Sunday school, which runs from 11 AM to 12:30 PM, the Center has a less regimented program. Services start at 10:30 AM and end with a community meal from 1:30 to 2:30 PM. The Center also would host services on Wednesday evenings, from 6:30 to 8 PM. Typically, about 40-50 people attend the Wednesday services, which are followed by a brief meal, ending around 8:30 PM.

The Center also would host four festivals each year; in mid April, mid June, early November, and early January. Festival attendance ranges from about 150-200 people. Temporary parking would be made available on the site for these events. Festival preparations would begin a few days in advance with daily attendance of a small group of organizers and the festival generally would be held on Sundays to coincide with the regular services at the Center.

III. ENVIRONMENTAL CHECKLIST

This chapter discusses the potential for adverse impacts on the environment. Where the potential for adverse impacts exist, the report discusses the affected environment, the level of potential impact on the affected environment and methods to avoid, minimize, or mitigate for potential impacts to the affected environment.

Findings of SIGNIFICANT IMPACT

Based on the Initial Study, Part I as well as other information reviewed by the Planning Department, the project does not have the potential for significant unavoidable impacts to any environmental resources.

Findings of LESS THAN SIGNIFICANT IMPACT Due to Mitigation Measures Incorporated Into the Project

Based on the Initial Study, Part I as well as other information reviewed by the Planning Department, the following environmental resources were considered and the potential for significant impacts were reduced to less than significant due to mitigation measures incorporated into the project. A detailed discussion of the potential adverse effects on environmental resources is provided below:

- Biological Resources
- Cultural Resources
- Utilities and Service Systems

Findings of LESS THAN SIGNIFICANT IMPACT

Based on the Initial Study, Part I as well as the review of the proposed project by the Department of Resource Management, the following environmental resources were considered and the potential for impact is considered to be less than significant. A detailed discussion of the potential adverse effects on environmental resources is provided below:

- Aesthetics
- Air Quality
- Geology and Soils
- Greenhouse Gas
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land-Use and Planning
- Noise
- Public Services
- Transportation and Traffic

Findings of NO IMPACT

Based on the Initial Study, Part I as well as the review of the proposed project by the Department of Resource Management, the following environmental resources were considered but no potential for adverse impacts to these resources were identified. A discussion of the no impact finding on environmental resources is provided below:

- Agricultural and Forest Resources
- Mineral Resources
- Population and Housing
- Recreation

3.1 Aesthetics

Would the project:		Significant Impact	Less Than Significant Impact With Mitigation	Less Than Significant Impact	No Impact
a.	Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b.	Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c.	Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d.	Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Environmental Setting

Aesthetic resources are generally defined as both the natural and built features of the landscape that contribute to the public’s experience and appreciation of the environment. Depending on the extent to which a project’s presence would alter the perceived visual character and quality of the environment, aesthetic impacts may occur.

The Tri-Valley Sikh Center consists of approximately 10 acres of land with a large single story house and a smaller modular house just south of the main house. A graded area that formerly housed containers and poultry coops lies just west of the houses. The remainder of the site (except the driveway) is open agricultural lands. The west side of the property borders North Livermore Ave., beyond which are several rural residences, while the south side overlooks Interstate 580, which is just south of the southern edge of the property, and about 20-30 feet lower than the higher parts of the project site, where the houses are located. Views of the property from N. Livermore Avenue are shown on Figures 5 and 6.



Figure 5: View of Project Site from N. Livermore Avenue at Project Driveway



Figure 6: View of Project Site from N. Livermore Avenue South of Project Driveway

Views of the project site from surrounding areas include the following:

North: Views of the site from the north along North Livermore Avenue include open agricultural lands and the two single-story houses.

South: Views of the site from the south, from across I-580 show open agricultural land rising sharply from the highway, with the existing homes beyond a line of redwood trees.

West: Areas west of the project, including along North Livermore Avenue, have views of the existing houses and open/agricultural lands in the foreground.

East: Views from the east include the rears of the two houses and some of the open space/agricultural lands.

Discussion

a. Would the project have a substantial adverse effect on a scenic vista?

No Impact. The county considers the rural character of the North Livermore area a unique scenic resource characterized by low-density residential housing, open space, and agricultural areas. The site is visible from nearby stretches of I-580 and North Livermore Ave. The site is surrounded by open space and agricultural areas with widely scattered rural residences.

The proposed project would not construct new buildings, and would include minor exterior alterations to the existing buildings. Removal of a row of mature trees, some of which are dead or dying, along the driveway would slightly degrade the site's visual character as seen from North Livermore Avenue on a temporary basis, however the applicants would replace these trees. A 30-35-foot tall flagpole would be erected in front of the main house. This flagpole/flag would be visible to viewers on North Livermore Ave. and nearby parts of I-580, as well as by residents in the houses across N. Livermore Ave. from the site. Introduction of his flagpole into local views is not considered a significant adverse change to the environment. The overall character of the site would not be substantially different from the existing conditions.

b. Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

No Impact. The proposed project is not located near a designated state scenic highway or eligible state scenic highway (DOT 2007). North Livermore Avenue is a designated County Scenic Route (Scenic Route Element of the Alameda County General Plan, Amended May 5, 1994, p. 6). The Scenic Route Element of the General Plan (May, 1966, p. 7) mirrors the Circulation Element as it existed in 1966, and therefore designates almost every major rural access roadway in the County, including North Livermore Avenue as Scenic Rural-Recreation Routes. Such routes are typically two-lane roads with light traffic that traverse sparsely populated agricultural areas, passing through areas of "outstanding scenic quality" or which are used for access to major recreational areas. Scenic routes are defined as composed of three

elements, including the right-of-way, the scenic corridor, and areas extending beyond the corridor. The corridor is defined as those properties along and up to 1,000 feet beyond the right-of-way, which should either be acquired for protection, or where development controls should be applied to preserve and enhance nearby views or maintaining unobstructed distant views along the route in rural areas with high scenic qualities. Areas extending beyond the corridor, in undeveloped areas, require general controls on grading, removal of existing vegetation, advertising signs, utility and communication towers and lines, and preservation of natural streambeds and landscapes.

The project site and immediate surroundings may not normally appear as “areas of outstanding scenic quality” when compared to other areas of the county where hills are prominent in the foreground, but the trees lining both sides of North Livermore Avenue starting north of the site have a classic rural image (an “allée”) that should be deemed sensitive to substantial alteration.

The project proposes minor exterior changes, including gravelling an existing bare-soil parking area and paving 50 feet of an existing access road. The access road also would be widened, and a row of previously planted, unhealthy trees along the driveway would be removed. The larger trees along N. Livermore Avenue would not be affected by the project. The project would not damage scenic resources, including but not limited to trees, outcroppings, and historic buildings within a scenic highway or roadway. Therefore, no impact would occur.

c. Would the project substantially degrade the existing visual character or quality of the site and its surroundings?

Less-than-Significant Impact. No scenic resources would be disturbed with the remodeling of the house, construction of a small enclosure for a dumpster, widening of the driveway, and construction of a parking lot for 25-30 cars. The enclosure architecture would be similar to the existing buildings onsite and additional parking space would be used occasionally during the week and in general provide open space in congruent with the current conditions in the area. The parking lot would be on an existing graded area, and would not affect views of the site. Removal of a row of mature trees along the driveway would slightly degrade the site’s visual character as seen from North Livermore Avenue, however the project proposes to replace these trees with a more appropriate species. Thus, the proposed project would not substantially degrade the existing visual character or quality of the site and its surroundings.

d. Would the project create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?

Less-than-Significant Impact. The proposed project does not include any additional nighttime other than small fixtures along site the house for safe access. Any new lighting would be shielded and downward facing and would not cast light on adjacent parcels, as a condition of

project approval. Car lights from evening vehicles accessing the site would slightly increase noticeable light effects along North Livermore Avenue and on the project site for short, infrequent periods. This lighting would not be noticeable in distant views from the south Livermore Hills because of the intervening lighting, including vehicular lights on I-580, the relative infrequency of nighttime events, and the distance from viewers.

3.2 Agricultural and Forest Resources

Would the project:		Significant Impact	Less Than Significant Impact With Mitigation	Less Than Significant Impact	No Impact
a.	Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b.	Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c.	Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined in Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d.	Result in the loss of forest land or conversion of forest land to a non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e.	Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

The project site is primarily an agricultural parcel that was used for poultry, berry farming and bee keeping through 2014. There are currently no agricultural uses on the site. There are no forest resources on or within the project vicinity.

The California Department of Conservation (CDC) Farmland Mapping and Monitoring Program (FMMP) designates agricultural land, based on soil quality and irrigation status, into eight categories. Based on the FMMP data, the site is designated as "Grazing Land" (CDC 2010). The property is farmland with two houses, and has no forest resources.

Discussion

a. Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

No Impact. The project site is designated as Grazing Land pursuant to the FMMP of the California Resources Agency (CDC 2010). The proposed project would maintain the existing agricultural uses of the site, as feasible due to water supply constraints. The parking lot would occupy land previously used for storage. Therefore, the project would have no impacts to important or unique farmlands.

b. Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?

No Impact. The project is not under Williamson Act contract. The proposed land use is permissible under existing zoning, with a Conditional Use Permit. No undeveloped agricultural lands are proposed to be developed by the project. Therefore the project would have no impact on these resources.

c. Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined in Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?

No Impact. There are no forest resources located within the project site and the site is not zoned for timber harvest. The proposed project would have no impact related to timberland harvest or conflicts with land zoned for forestry or timber harvest.

d. Would the project result in the loss of forest land or conversion of forest land to a non-forest use?

No Impact. The project area is not forested. The site does not support any forestry resources, as defined in Public Resources Code (PRC) 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g)). No impact would occur.

e. Would the project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?

No Impact. Indirect impacts on agricultural lands can occur in two ways: 1) by urban development placing pressure on adjacent agricultural lands to convert to non-agricultural uses; or 2) through conflict between the two types of land uses leading to the abandonment of agricultural uses.

The proposed project is consistent with land use policies of the East Alameda County General Plan and adopted zoning designations. Further, the project could continue limited agricultural uses onsite, as feasible due to water supply constraints. No forest land or timberland exists on or in the vicinity of the project site. Therefore, the proposed project would have no impact related to conversion of farmland or forest land to a non-agricultural/non-forest use.

3.3 Air Quality

Would the project:		Significant Impact	Less Than Significant Impact With Mitigation	Less Than Significant Impact	No Impact
a.	Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b.	Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c.	Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is classified as non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d.	Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e.	Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Environmental Setting

According to the Bay Area Air Quality Management District (BAAQMD), the City of Livermore and its environs are in the Livermore Valley (Valley) climatological sub-region of the Bay Area. Air pollution potential is high in the Valley, especially in the summer and fall when high temperatures increase the potential for ozone build up. The Valley not only traps locally generated pollutants, but can receive ozone and ozone precursor intrusions from San Francisco, Alameda, Contra Costa and Santa Clara counties. During the winter, strong surface-based temperature inversions often occur. As a result, pollutants such as carbon monoxide and particulate matter, generated by motor vehicles, fireplaces/woodstoves and agricultural burning, can become concentrated. Two types of particulate matter are of particular concern as air pollutants: particulate matter less than 10 microns in diameter (PM₁₀) and particulate matter less than 2.5 microns in diameter (PM_{2.5}).

The Bay Area is currently designated “nonattainment” for state and national (1-hour and 8-hour) ozone standards, for the state PM₁₀ standards, for state and national (annual average and 24-hour) PM_{2.5} standards, and “attainment” or “unclassifiable” with respect to ambient air

quality standards for other pollutants. The BAAQMD maintains a number of air quality monitoring stations, which continually measure the ambient concentrations of major air pollutants throughout the Bay Area. The closest such monitoring station to the Project site is at 793 Rincon Avenue in Livermore, about a mile to the southwest. Violations of both the ozone and particulate standards have been recorded at the Livermore monitoring station on a few days in each year over the last three years.

The City of Livermore contains a considerable number of stationary industrial/commercial air pollution sources that have air pollutant emissions substantial enough to require that they operate under BAAQMD air permits, but none of these are located closer than 1000 feet from the Project site boundary. I-580, a major source of air pollution, passes within a hundred feet of the Project site's southeast corner. However, all the Project buildings proposed for use as a Sikh community center are located in the site's northeastern corner, more than 300 feet from I-580.

There are many other chemical compounds that are commonly emitted into the air and are regulated as toxic air contaminants (TACs). In the Bay Area, the majority of the estimated carcinogenic/chronic health risk can be attributed to relatively few TACs, the most important being particulate matter from diesel-fueled engines (DPM). The BAAQMD has identified DPM as being responsible for about 80 percent of the cumulative cancer risk from all airborne TAC exposures.

This air quality analysis addressing the Initial Study air quality checklist items above was performed using the methodologies recommended in *CEQA Air Quality Guidelines*.¹ The criteria air pollutants evaluated in this Initial Study are: carbon monoxide (CO), reactive organic compounds (ROG) and nitrogen dioxide (NO₂) (both being precursors to ozone formation), inhalable particulates (PM₁₀), and fine particulates (PM_{2.5}). Health risks associated with project-specific and cumulative exposures to DPM are also evaluated.

According to the *CEQA Air Quality Guidelines*, any project would have a significant potential for causing/contributing to a local air quality standard violation or making a cumulatively considerable contribution to a regional air quality problem if its criteria pollutant emissions would exceed any thresholds presented in Table 1 during construction or operation.

Also, there would be significant operational CO impacts if CO emissions from Project motor vehicle traffic or from cumulative traffic congestion would exceed the ambient air quality standards of 9.0 ppm (8-hour average) or 20.0 ppm (1-hour average).

Finally, the *CEQA Air Quality Guidelines* establish a relevant zone of influence for an assessment of project-level and cumulative health risk from TAC exposure to an area within 1,000 feet of a project site. Project construction-related or project operational TAC impacts to sensitive

¹ The Air District's June 2010 adopted thresholds of significance were challenged in a lawsuit. Although the BAAQMD's adoption of significance thresholds for air quality analysis has been subject to judicial actions, the County of Alameda has determined that BAAQMD's Revised Draft Options and Justification Report (October 2009) provide substantial evidence to support the BAAQMD recommended thresholds. Therefore, the County of Alameda has determined the BAAQMD 2010 thresholds are appropriate for use in this analysis.

receptors within the zone that exceed any of the following thresholds are considered significant:

- An excess cancer risk level of more than 10 in one million, or a non-cancer hazard index greater than 1.0.
- An incremental increase of greater than 0.3 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) for annual average $\text{PM}_{2.5}$ concentrations.

Table 1: CEQA Air Quality significance thresholds for criteria air pollutant emissions

Pollutant	Construction Average Daily (lbs./day)	Operational	
		Average Daily (lbs./day)	Maximum Annual (tons/year)
Reactive Organic Gases (ROG)	54	54	10
Oxides of Nitrogen (NO_x)	54	54	10
Inhalable Particulate Matter (PM_{10})	82 (exhaust)	82	15
Fine Inhalable Particulate Matter ($\text{PM}_{2.5}$)	54 (exhaust)	54	10
$\text{PM}_{10}/\text{PM}_{2.5}$ (Fugitive Dust)	BMPs ^a	N/A	N/A

Notes: BMPs = Best Management Practices
N/A = Not Applicable

^a If BAAQMD Best Management Practices (BMPs) for fugitive dust control are implemented during construction, the impacts of such residual emissions are considered to be less than significant.

Source: Bay Area Air Quality Management District, 2011 May (Revised), California Environmental Quality Act Air Quality Guidelines.

Cumulative impacts from TACs emitted from freeways, state highways or high volume roadways (i.e., the latter defined as having traffic volumes of 10,000 vehicles or more per day or 1,000 trucks per day), and from all BAAQMD-permitted stationary sources within the zone to sensitive receptors within the zone that exceed any of the following thresholds are considered cumulatively significant:

- A combined excess cancer risk levels of more than 100 in one million.
- A combined non-cancer hazard index greater than 10.0.
- A combined incremental increase in annual average $\text{PM}_{2.5}$ concentrations greater than $0.8 \mu\text{g}/\text{m}^3$.

Discussion

a. Conflict with or obstruct implementation of the applicable air quality plan?

Less-than-Significant Impact. The Bay Area Air Quality Management District (BAAQMD) adopted its 2010 Bay Area Clean Air Plan (CAP) in accordance with the requirements of the California Clean Air Act (CCAA) to implement all feasible measures to reduce ozone; provide a control

strategy to reduce ozone, particulate matter and air toxics (TACs) in a single, integrated plan; and establish emission control measures to be adopted or implemented. The primary goals of the 2010 Bay Area CAP are to:

- Attain/maintain air quality standards;
- Reduce population exposure to air pollutants and protect public health in the Bay Area.

Compliance with BAAQMD-approved CEQA thresholds of significance are the conditions for determining that a project would be consistent with all adopted control measures and would not interfere with the attainment of CAP goals. Also, the proposed Project's purpose would be to convert an existing 5780 square foot building (formerly residential) for cultural/religious use by the local Sikh community. Thus, it does not have the potential to substantially affect housing, employment, transportation and/or population projections within the Bay Area Air Basin. In fact, it could reduce contributions to regional air pollutant inventory from Project-associated motor vehicle trips by shortening the average trip length (i.e., Sikh community members living closer to the proposed community center would choose to drive to it, rather than to a more distant existing community center or rental hall such as at the Dublin City Hall, which is presently used as such). As the analysis below demonstrates, the Project would not have significant and unavoidable air quality impacts because it meets all BAAQMD CEQA thresholds with the mitigation measure described below.

b. Violate any air quality standard or contribute substantially to an existing or projected air quality violation?

Less-than-Significant Impact.

Project Construction-Related Impacts

The Project would convert an existing 5780 square-foot former residential building to cultural/religious use by the Sikh community; a 27-space gravel-topped parking area will also be provided just south of the building. Project construction, expected to take about two months, would generate temporary emissions of criteria pollutants in equipment exhaust and fugitive dust from equipment and material movement. The *CEQA Air Quality Guidelines* recommend quantification of construction-related exhaust emissions and comparison of those emissions to the CEQA significance thresholds. Thus, the CalEEMod (California Emissions Estimator Model, Version 2013.2.2) was used to quantify construction-related emissions of criteria pollutants.

Table 2 provides the estimated short-term Project construction equipment, truck and worker vehicle commute emissions. The maximum daily construction period emissions were compared to the CEQA significance thresholds. All construction-related emissions would be well below the thresholds.

Table 2: Project Construction Criteria Pollutant Emissions
(maximum pounds per day)

Construction Period	ROG	NOx	PM ₁₀ (Exhaust)	PM _{2.5} (Exhaust)
Year 2016	13.8	2.4	0.5	0.3
Significance Thresholds	54	54	82	54
Significant Impact?	No	No	No	No

The *CEQA Air Quality Guidelines* require a number of construction Best Management Practices (BMPs) to control fugitive dust, and the use of paints and coatings compliant with BAAQMD volatile organic compounds (VOC) control regulations. Thus, the following measures must be implemented by the Project construction contractor:

BAAQMD Required Dust Control Measures: The construction contractor shall reduce construction-related air pollutant emissions by implementing BAAQMD’s basic fugitive dust control measures, including:

- All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
- All haul trucks transporting soil, sand, or other loose material off site shall be covered.
- All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
- All vehicle speeds on unpaved surfaces shall be limited to 15 miles per hour.
- All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. The pad for the outside trash enclosure and any new paving shall be laid as soon as possible after grading unless seeding or soil binders are used.
- A publically visible sign shall be posted with the telephone number and person to contact at the Lead Agency regarding dust complaints. This person shall respond and take corrective action with 48 hours. The Air District’s phone number shall also be visible to ensure compliance with applicable regulations.

BAAQMD Regulation 8, Rule 3 for Architectural Coatings: Emissions of volatile organic compounds (VOC) due to the use of architectural coatings are regulated by the limits contained in Regulation 8: Organic Compounds, Rule 3: Architectural Coatings (Rule 8-3). Rule 8-3 was revised to include more stringent VOC limit requirements. The revised VOC architectural coating limits, which went into effect on November 21, 2001.

- The construction contractor shall use paints and solvents with a VOC content of 100 grams per liter or less for interior and 150 grams per liter or less for exterior surfaces.

Project Operational Impacts

Air Pollutant Emissions. The CalEEMod was also used to estimate emissions that would be associated with Project operation (i.e., motor vehicle use, space and water heating, maintenance equipment etc.) expected to commence in the year 2016 after Project construction is complete.

Estimated operational daily and annual emissions that would be produced by the Project are presented in Tables 3 and 4 and compared to the CEQA thresholds of significance. As indicated, the estimated Project operational emissions would be well below the thresholds and would be less than significant.

Table 3: Project daily operational criteria pollutant emissions (pounds per day)

Emission Category	ROG	NO _x	PM ₁₀ (Exhaust)	PM _{2.5} (Exhaust)
Area	0.14	0.00	0.00	0.00
Energy	0.00	0.04	0.00	0.00
Mobile	0.28	0.69	0.29	0.08
Total Project	0.42	0.73	0.29	0.09
Significance Thresholds	54	54	82	54
Significant Impact?	No	No	No	No

Table 4: Project annual operational criteria pollutant emissions (tons per year)

Emission Category	ROG	NO _x	PM ₁₀ (Exhaust)	PM _{2.5} (Exhaust)
Area	0.03	0.00	0.00	0.00
Energy	0.00	0.01	0.00	0.00
Mobile	0.02	0.06	0.02	0.01
Total Project	0.05	0.07	0.03	0.01
Significance Thresholds	10	10	15	10
Significant Impact?	No	No	No	No

Carbon Monoxide Impacts. The BAAQMD has identified the following screening criteria for determining whether a project’s motor vehicle CO emissions would likely cause ambient air quality standards to be exceeded:

- The Project is consistent with an applicable congestion management program established by the county congestion management agency for designated roads or highways, the regional transportation plan, and local congestion management agency plans.

- The Project traffic would increase traffic volumes at affected intersections to more than 44,000 vehicles per day.
- The Project traffic would increase traffic volumes at affected intersections to more than 24,000 vehicles per day where vertical and/or horizontal mixing is substantially limited (e.g., tunnel, parking garage, bridge underpass, natural or urban street canyon, below-grade roadway).

Since Project traffic added to local streets would fall far short of these thresholds, it would have a less-than-significant effect on traffic flow locally and regionally. Thus, the Project's operational ambient CO impacts would be less than significant.

c. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is classified as non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors)?

Less-than-Significant Impact. As discussed in Item b), above, Project-related emissions would be below the BAAQMD significance thresholds. Therefore, the Project would not make cumulatively considerable contributions to the Bay Area's regional problems with ozone or particulate matter. Thus, cumulative emission impacts would be less than significant.

d. Expose sensitive receptors to substantial pollutant concentrations?

Less-than-Significant Impact. Ambient TAC concentrations produced by project and other significant local TAC sources within 1000 feet of a project site are considered "substantial" if they exceed the CEQA health risk thresholds at sensitive receptors within this zone. Local land uses around the Project site include commercial uses south of the Project site and I-580, and a few scattered residential uses to the northwest of the Project site. The nearest existing residential land use is across North Livermore Avenue about 400 feet from the Project site's northwestern corner. However, this closest residential use is about 1000 feet distant from the area on the site where Project construction and its associated TAC emissions would take place (i.e., the site's northeast corner) and from the I-580 TAC emissions source.

Project Construction-Related TAC Impacts

Cancer risk is the lifetime probability of developing cancer from exposure to carcinogenic substances. Following health risk assessment (HRA) guidelines established by California Office of Environmental Health Hazard Assessment (OEHHA) and the BAAQMD in *Recommended Methods for Screening and Modeling Local Risks and Hazards*, incremental cancer risks were estimated by applying established toxicity factors to modeled TAC concentrations. The maximum cancer risk from Project construction DPM for the closest residential receptor would fall far short of the BAAQMD project-level threshold of ten per million because no DPM-emitting construction equipment would be required for most Project construction (likely only a few days of the total two-month construction period to level the parking area and access road), and all Project construction would take place at or greater than 1000 feet from the nearest residence.

Adverse health impacts unrelated to cancer are measured using a hazard index (HI), which is defined as the ratio of the Project's incremental TAC exposure concentration to a published reference exposure level (REL) as determined by OEHHA. If the HI is greater than 1.0, then the impact is considered to be significant. The HI from Project construction DPM for the closest residential receptor would fall far short of the BAAQMD project-level threshold of 1.0 for the same reasons cited above for cancer risk.

Project's maximum annual PM_{2.5} concentration increment would fall far short of the BAAQMD threshold of 0.3 µg/m³ for the same reasons cited above for cancer risk and HI.

Thus, all Project construction-related TAC impacts are less than significant.

Cumulative TAC Impacts

The *CEQA Air Quality Guidelines* method for determining cumulative TAC health risk requires the tallying of risk from project sources and all permitted stationary sources and major roadways within 1,000 feet of a project site and adding them for comparison with the cumulative health risk thresholds.

A database of permitted stationary emissions sources, major roadways and their associated health risks is available online from the BAAQMD through the Stationary Source and Highway Screening Analysis Tools. The only listed TAC source located within 1,000 feet of the Project site is I-580. The cumulative cancer risk, HI and PM_{2.5} levels at the closest residential from I-580 (i.e., 10.5, 0.008 and 0.06, respectively) would be below all the BAAQMD cumulative significance thresholds (i.e., 100, 10 and 0.8, respectively). Thus, cumulative TAC impacts would be less than significant.

e. Create objectionable odors affecting a substantial number of people?

Less-than-Significant Impact. The BAAQMD's significance criteria for odors are subjective and are based on the number of odor complaints generated by a project. Generally, the BAAQMD considers any project with the potential to frequently expose members of the public to objectionable odors to cause a significant impact. With respect to the proposed Project, diesel-fueled construction equipment exhaust would be odorous close by. However, these emissions typically dissipate quickly. With the 1000-foot distance separating the Project construction areas and the closest residence, odor impacts would be unlikely. Therefore, odor impacts associated with the Project would be less than significant.

3.4 Biological Resources

Would the project:		Significant Impact	Less Than Significant Impact With Mitigation	Less Than Significant Impact	No Impact
a.	Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b.	Have a substantial adverse effect on any aquatic, wetland, or riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c.	Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act including, but not limited to, marsh, vernal pool, coastal, etc., through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d.	Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e.	Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	policy or ordinance?				
f.	Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

Pacific Biology evaluated the biological resources on the subject property on October 27, 2015. The 9.85-acre property is partially developed with an existing home, a mobile house, storage areas, and a graded area used for parking. With the exception of the proposed widening of the existing access road, all proposed construction activities would occur within this developed area. The remainder of the property is not proposed for development.

The undeveloped portions of the property have, from 2008 until 2014, been used for farming strawberries, bee keeping, and raising chickens in coops. The onsite vegetation reflects these recent disturbances and consists primarily of weedy and non-native species such as yellow-star thistle (*Centaurea solstitialis*), Italian thistle (*Carduus pycnocephalus*), Russian thistle (*Kali tragus*), rip-gut brome (*Bromus diandrus*), soft chess (*Bromus hordeaceus*), and wild oats (*Avena barbata*).

There is a low density of California ground squirrels (*Otospermophilus beecheyi*) and their burrows on the site; these burrows occur entirely outside of the proposed construction area. Small trees have been planted on the site, including coast redwood (*Sequoia sempervirens*), walnut (*Juglans* sp.), and palm trees. The redwood trees are generally in poor health, likely due to suboptimal growing conditions and inadequate irrigation. The property is bordered to the south by Interstate 580 (I-580) and to the north, west, and east by a large expanse of sparsely developed lands consisting primarily of annual grasslands/agricultural grazing lands.

Discussion

a. Would the project have a substantial adverse effect, either directly or through habitat modifications on any species identified as a candidate, sensitive or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

The project site is located in a region known to support various special-status plant and wildlife species (see Appendix A). However, the portions of the property in which construction activities would occur are developed or heavily disturbed, and do not provide suitable habitat for special-status species. The remainder of the property (outside of the development area) is also in a disturbed condition and provides marginal habitat conditions, as discussed below.

Special-Status Plant Species

Less than Significant Impact. Special-status plants include those species that are state or federally listed as Rare, Threatened or Endangered; federal candidates for listing; proposed for state or federal listing; or included on Lists 1, 2, 3, or 4 of the CNPS Inventory of Rare and Endangered Plants of California (CNPS Inventory).

As previously discussed, all proposed construction activities would occur within developed or heavily disturbed areas, while the remainder of the property is dominated by weedy plant species (including invasive weeds); these conditions are not favorable for special-status plant species. Additionally, the site lacks habitat conditions (i.e., alkaline soils, wetlands) associated with the occurrence of locally occurring special-status plant species such as heartscale (*triplex cordulata* var. *cordulata*), lesser saltscale (*Atriplex minuscula*), Congdon's tarplant (*Centromadia parryi* ssp. *congdonii*), brittlescale (*Atriplex depressa*), San Joaquin spearscale (*Extriplex joaquinana*), and hairless popcornflower (*Plagiobothrys glaber*). Therefore, given the highly disturbed and weedy condition of the site, and the absence of habitat conditions associated with locally occurring special-status plant species, it is not expected that any special-status plants occur on the project site. Impacts to special-status plant species would be less than significant.

Special-Status Wildlife Species

Less than Significant with Mitigation. Special-status wildlife species include those that are state or federally listed as Threatened or Endangered, proposed for listing as Threatened or Endangered, designated as state or federal candidates for listing, a federal Bird of Conservation Concern, a state Species of Special Concern, a state Fully Protected Animal, or included on the California Department of Fish and Wildlife (CDFW) Special Animals List.

Appendix A shows the location of special-status wildlife species documented by the California Natural Diversity Data Base (CNDDDB) in the surrounding area (i.e., within approximately 2 miles of the project site). For the reasons discussed below, the proposed project has some potential to disturb burrowing owls and other nesting birds, but due to the absence of suitable habitat and other factors, other special-status wildlife species would not be impacted by the proposed project.

Species Potentially Impacted

Burrowing owl (*Athene cunicularia*) is a federal Bird of Conservation Concern and a California Species of Special Concern. This small ground-dwelling owl lives in open, dry grasslands, agricultural and range lands, and desert habitats associated with burrowing mammals. Burrowing owls nest and shelter in ground squirrel and other suitable small mammal burrows or artificial structures. As previously discussed, there are no ground squirrel or other suitable

small mammal burrows in the proposed construction area. However, potential burrowing owl habitat occurs on portions of the property to remain undeveloped, and on adjacent properties. The proposed project would not result in the loss of burrowing owl habitat or the direct disturbance of burrowing owls. However, construction-related noise could disturb nesting by the species should burrowing owls occur near the construction area. It should also be noted that the active nests of most native bird species are protected by the Migratory Bird Treaty Act (16 U.S.C. 704) and the California Fish and Game Code (Section 3503). Various common bird species could nest on or near the construction area. Therefore, construction activities and associated noise could result in the loss or disturbance of an active bird nest.

Mitigation Measure BIO-1: If construction would commence anytime during the nesting/breeding season of native bird species potentially nesting on or near the site (typically February through August in the project region), a pre-construction survey for nesting birds shall be conducted. The survey shall be conducted by a qualified biologist within 14 days of the commencement of construction activities that would occur during the nesting/breeding season. The intent of the survey shall be to determine if active nests of burrowing owls or other bird species protected by the Migratory Bird Treaty Act and/or the California Fish and Game Code are present within the construction zone or within 300 feet of the construction zone. The survey area shall include all trees and shrubs, as well as fallow fields (which could be utilized by burrowing owls) in the construction area and a surrounding 300 foot area (where access is possible). The surveys shall be timed such that the last survey is concluded no more than two weeks prior to initiation of construction or tree removal. If ground disturbance activities are delayed following a survey, then an additional pre-construction survey shall be conducted such that no more than two weeks will have elapsed between the last survey and the commencement of ground disturbance activities.

If active nests are found in areas that could be directly affected or are within 300 feet of construction and would be subject to prolonged construction-related noise, a no-disturbance buffer zone shall be created around active nests during the breeding season or until a qualified biologist determines that all young have fledged. The size of the buffer zones and types of construction activities restricted within them will be determined by taking into account factors such as the following:

- Noise and human disturbance levels at the construction site at the time of the survey and the noise and disturbance expected during the construction activity;
- Distance and amount of vegetation or other screening between the construction site and the nest; and
- Sensitivity of individual nesting species and behaviors of the nesting birds.

Species Not Impacted

California red-legged frog (*Rana draytonii*) is a federally listed Threatened species and a California Species of Special Concern. Breeding occurs in streams, deep pools, backwaters within streams and creeks, ponds, marshes, sag ponds, dune ponds, lagoons, and stock ponds. This semi-aquatic species also utilizes non-aquatic habitats for refuge and dispersal. It rests and feeds in riparian vegetation and the moisture and cover of the riparian zone may facilitate dispersal. The species has also been documented dispersing through areas with sparse vegetative cover and dispersal patterns are considered to be dependent on habitat availability and environmental conditions (Scott et. al. 1998). During periods when water is absent, California red-legged frogs may take refuge in moist areas within riparian habitats, well boxes, and small mammal burrows in surrounding upland areas.

There is no aquatic habitat on the site. The nearest creeks are Cayetano Creek, which is approximately 0.5 mile to the west and Arroyo Las Positas, which is approximately 0.1 mile to the south, across I-580. Additionally, the project site is not located near aquatic habitat or within an expected dispersal corridor for the species. Therefore, California red-legged frog is not expected to occur on the project site or be impacted by the proposed project.

California tiger salamander (*Ambystoma californiense*) is a federally and state Threatened species. This species is rarely seen outside of its nocturnal breeding migrations, which begin with the first heavy rains of the season (generally in November or December). Sexually mature adults move at night from underground refugia (e.g., squirrel burrows, pocket gopher burrows) to breeding ponds from late November to early March. Vernal pools, seasonal ponds, and stock ponds are used for breeding. The species may move distances up to 1.24 miles from upland refugia to a breeding pool (USFWS 2003). This distance is normally less when there are large numbers of refuge sites in close proximity to breeding sites.

There is no aquatic habitat on the site and suitable upland habitat does not occur in the construction area due to the absence of ground squirrel burrows and its heavily disturbed condition. The species is also not expected to use the portion of the site to remain undeveloped due to its distance from known breeding locations and the past use of these areas for agricultural purposes (i.e., strawberries, bee keeping, chicken coops). Therefore, California tiger salamanders would not be impacted by the proposed project.

Western pond turtle (*Clemmys marmorata*) is a California Species of Special Concern. This turtle primarily inhabits aquatic habitats, including ponds, slow moving streams, lakes, marshes, and canals. Suitable habitat for this species does not occur on or near the project site. Therefore, this species would not be impacted by the proposed project.

Foothill yellow-legged frog (*Rana boylei*) is a California Species of Special Concern. This frog is associated with perennial creeks with rocky substrate. Suitable habitat for this species does not occur on or near the project site. Therefore, this species would not be impacted by the proposed project.

California linderiella (*Linderiella occidentalis*) is included on the CDFW Special Animal List. This species is associated with vernal pools and other seasonal ponding of water. Suitable habitat for this species does not occur on or near the project site. Therefore, this and other vernal pool associated invertebrates would not be impacted by the proposed project.

Ferruginous hawk (*Buteo regalis*) is a federal Bird of Conservation Concern. This species may forage over the open grasslands on and near the site during the winter, but the species does not nest in the project region. Additionally, all proposed construction activities would occur in developed or heavily disturbed areas. Therefore, this species would not be impacted by the proposed project.

b. Would the project have a substantial adverse effect on any aquatic, wetland, or riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations,

No Impact. During the October 2015 site visit, a search was conducted for riparian habitats and other sensitive plant communities. There is no riparian habitat or other sensitive plant communities on the project site. Therefore, no impacts to riparian habitat and other sensitive plant communities would occur.

c. Would the project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act including, but not limited to, marsh, vernal pool, coastal, etc., through direct removal, filling, hydrological interruption, or other means?

No Impact. During the October 2015 site visit, a search was conducted for creeks, wetlands, and other potentially jurisdictional resources. There are no creeks or wetlands present on the project site. Therefore, no impacts to federally protected wetlands and other waters would occur.

d. Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

Less than Significant. Wildlife corridors are described as pathways or habitat linkages that connect discrete areas of natural open space otherwise separated or fragmented by topography, changes in vegetation, and other natural or manmade obstacles such as urbanization. The proposed development area does not connect areas of open space and all proposed site improvements would occur in developed or heavily disturbed portions of the site.

None of the proposed project features would create a barrier to wildlife movement. Additionally, the property is bordered to the south by I-580, which poses a barrier to north-south wildlife movement. For these reasons, the proposed project would not substantially interfere with the local or regional movement of wildlife species and related impacts would be less than significant.

e. Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

No Impact. The proposed project would require the removal of most or all of the trees that border the existing access road, due to the required road widening. These trees include planted coast redwood and walnut trees, which are relatively small. The Alameda County Tree Ordinance (Ordinance No: 0-2004-23) only applies to trees within the County right-of-way, and does not apply to the trees on the privately owned subject property. Therefore, the project would not conflict with a tree preservation policy and no related impacts would occur.

f. Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

No Impact. The project site is located within the area covered by the East Alameda County Conservation Strategy (EACCS). The EACCS does not directly result in permits for any participating local agency, and therefore, is not a Habitat Conservation Plan or a Natural Community Conservation Plan. Instead, the EACCS is a tool to inform decisions during standard environmental permitting processes for projects that occur in the study area. Potential project-related impacts to all species and habitat types covered by the EACCS were evaluated. The proposed project would not result in the loss of habitat used by covered species or in the loss of a covered habitat type.

3.5 Cultural Resources

Would the project:		Significant Impact	Less Than Significant Impact With Mitigation	Less Than Significant Impact	No Impact
a.	Cause a substantial adverse change in the significance of an historical resource as defined in CEQA Guidelines §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b.	Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines §15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c.	Directly or indirectly destroy a unique paleontological resource or site, or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d.	Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Environmental Setting

The Tri-Valley is known to have been inhabited by prehistoric settlements, dating up to over 10,000 BCE, and was relatively well-populated by pre-western tribal groups, most notably the Ohlone, present in the area from approximately 500 AD forward to the 18th Century arrival and settlement of the San Francisco region by Spanish and other western cultures. The region has been extensively researched for development projects that involve major grading and excavation activities, and various cultural artifacts and resources, as well as Paleological findings, have been discovered in recent years.

The site has been farmed for many years. The houses on the site are of recent (post 2000) construction and therefore not historic. A review of the Historical and Cultural Resources Survey, East Alameda County (Michael Corbett, June 17, 2005), did not identify any historic resources on the site (i.e. sites eligible for listing under the National Register of Historic Places (NRHP) or the California Register of Historical Resources (CRHR). The area to be affected by the project has been graded and disturbed by past construction activities/land uses and, as discussed below, no undisturbed areas would be affected by the project. Therefore no archaeological study has been performed for the site.

Discussion

a. Would the project cause a substantial adverse change in the significance of an historical resource as defined in CEQA Guidelines §15064.5?

No Impact. There are no historic buildings or structures located within the project footprint. Therefore, no impact would occur to any buildings or structures listed on the State Office of Historic Preservation' California Register or the National Register of Historic Places. No impact would occur.

b. Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines §15064.5?

Less-than-Significant with Mitigation Incorporated. Implementation of the proposed project would involve small areas of soil disturbance (i.e., grading, excavating, grubbing, vegetation removal, etc.). The site has been disturbed by farming and house construction, and the project proposes only very shallow surface grading for parking and driveway widening. Therefore any impacts to archaeological resources are very unlikely. However, the potential exists to encounter previously undiscovered cultural material during project-related ground disturbing activities. Because of little to no excavation, any resources present on the site would be 'preserved in place', which is a preferred method of treatment.

Because these activities could disturb previously unknown, buried, and important cultural resources, this would be a potentially significant impact. Implementation of Mitigation Measure CUL-1 would reduce the project's potential for disturbance of buried important cultural resources to a less-than-significant level.

Mitigation Measure CUL-1: If an inadvertent discovery of cultural materials (e.g., animal bone, unusual amounts of shell, ceramics, glass, etc.) is made during project-related ground disturbing activities, any ground disturbance in the area of the find shall be halted and a qualified professional archaeologist shall be notified regarding the discovery. The archaeologist shall determine whether the resource is potentially significant in accordance with the standards of the National Register of Historic Places (NRHP) or the California Register of Historical Resources (CRHR), and develop appropriate mitigation. Mitigation may include, but not necessarily be limited to, in-field documentation, archival research, archaeological testing, data recovery excavations or recordation.

Significance after Mitigation

Implementation of mitigation measure CUL-1 would reduce impacts to undiscovered cultural resources to a less- than-significant level because appropriate preservation measures would be implemented to preserve significant cultural resources if they are discovered during project construction activities.

c. Would the project directly or indirectly destroy a unique paleontological resource or site, or unique geologic feature?

No Impact. The proposed project involves only very minor surface grading on previously disturbed soils. Therefore it would not have the potential to affect any paleontological resources.

d. Would the project disturb any human remains, including those interred outside of formal cemeteries?

Less-than-Significant with Mitigation Incorporated. No evidence is available to suggest that any prehistoric or historic-era marked or unmarked interments are present within or in the immediate vicinity of the project site. In addition, the site has been disturbed by farming and house construction, and the project proposes only very shallow surface grading for parking and driveway widening. Therefore any impacts to human remains are very unlikely. However, there is a possibility that unmarked previously unknown graves of Native American or Euro-Americans could be present within the project site. Potential disturbance of previously undiscovered human remains during project construction would be a potentially significant impact. Implementation of Mitigation Measure CUL-2 would reduce the project's potential for disturbance of human remains to a less-than-significant level.

Mitigation Measure CUL-2: In accordance with the California Health and Safety Code, if human remains are uncovered during ground- disturbing activities, potentially damaging excavation in the area of the burial shall be halted and the Alameda County Coroner and a professional archaeologist shall be contacted to determine the nature and extent of the remains. The coroner is required to examine all discoveries of human remains within 48 hours of receiving notice of a discovery on private or state lands (Health and Safety Code, Section 7050.5[b]). If the coroner determines that the remains are those of a Native American, he or she must contact the Native American Heritage Commission (NAHC) by phone within 24 hours of making that determination (Health and Safety Code, Section 7050[c]). If the remains are determined to be those of a Native American, then the following shall occur:

- (a) The State Historic Preservation Office (SHPO), the construction contractor, an archaeologist, and the NAHC-designated Most Likely Descendant (MLD) shall determine the ultimate treatment and disposition of the remains and take appropriate steps to ensure that additional human interments are not disturbed. The responsibilities for acting upon notification of a discovery of Native American human remains are identified in Section 5097.9 of the California Public Resources Code.
- (b) The SHPO shall ensure that the immediate vicinity (according to generally accepted cultural or archaeological standards and practices) is not damaged or disturbed by further development activity until consultation with the MLD has taken place. The MLD will have 48 hours to complete a site inspection and make recommendations after being granted access to the site. A range of possible treatments for the

remains, including nondestructive removal and analysis, preservation in place, relinquishment of the remains and associated items to the descendants, or other culturally appropriate treatment may be discussed. Assembly Bill (AB) 2641 suggests that the concerned parties may extend discussions beyond the initial 48 hours to allow for the discovery of additional remains. AB 2641(e) includes a list of site protection measures and states that the County will implement one or more of the following measures:

4. record the site with the NAHC or the appropriate Information Center,
 5. utilize an open-space or conservation zoning designation or easement, and/or
 6. record a document with the County in which the property is located.
- (c) The applicant or their authorized representative shall reburial the Native American human remains and associated grave goods with appropriate dignity on the property in a location not subject to further subsurface disturbance if the NAHC is unable to identify a MLD, or if the MLD fails to make a recommendation within 48 hours after being granted access to the site. The County may also reinter the remains in a location not subject to further disturbance if he/she rejects the recommendation of the MLD, and mediation by the NAHC fails to provide measures acceptable to the County.

Significance after Mitigation

Implementation of mitigation measure CUL-3 would reduce impacts to undiscovered human remains to a less- than-significant level because appropriate measures would be implemented to properly handle and inter any remains during project construction activities.

3.6 Geology and Soils

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

Environmental Setting

Regional Geology

The project site is located in eastern Alameda County in the Livermore Valley. The Livermore Valley lies south and west of the Diablo Range and east of the East Bay Hills. This valley is a deep alluviated depression, containing sediments deposited as part of the Livermore Gravels Formation.

Soils

Soil consists of Residuum weathered from sandstone and shale, being clay loam between 0 to 36 inches and weathered bedrock from 36 to 40 inches, and reaching water table at more than 80 inches of depth. The soils consist of clay to silty clay with varying mixtures of gravel, cobbles, and boulders. The soil is naturally well drained and classified as a medium runoff class (U.S. Department of Agriculture, 2015).

Seismic Hazards

The Greenville fault forms the eastern border of the Livermore Valley, separating it from the western foothills of the Diablo Range. It is postulated that the Greenville Fault is connected to the Concord Fault at depth by a buried “blind” thrust fault system. The project area is subject to strong ground shaking from major earthquakes on a number of local and regional faults, which could increase the potential for ground-shaking damage. The Association of Bay Area Governments (ABAG) Resilience Program produced a ground shaking potential map, which placed the project site in a very strong shaking potential zone (ABAG 2015).

The 1972 Alquist-Priolo Earthquake Fault Zoning Act (AP Zone Act) was passed to prevent the new development of buildings and structures for human occupancy on the surface of active faults. The locations of active faults are established into fault zones by the AP Zone Act. The project site does not lie within a designated Alquist-Priolo Earthquake Fault Zone (California Department of Conservation – Regulatory Maps, 2015), but would be subject to very strong ground-shaking.

Discussion

a-1. Would the project cause the rupture of a known earthquake fault, as described on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?

Less-than-Significant Impact. No known active or inactive faults or earthquake hazard zones are located on the project site. The nearest Earthquake zone delineated by the Alquist-Priolo zoning map is the Greenville Fault Zone, located approximately six miles east of the project site. Because surface ground rupture along faults is generally limited to a linear zone a few feet wide, ground rupture due to a fault within or across the project site is unlikely. Therefore, hazards associated with a potential fault rupture would be less than significant.

a-2. Would the project cause strong seismic ground shaking?

Less-than-Significant Impact. The project site would experience strong or very strong seismic shaking in the event of a major earthquake on one the active faults in the area. The Association of Bay Area Governments online hazard maps show that seismic shaking on the site (see <http://gis.abag.ca.gov/website/Hazards/?hlyr=calaverasSCN&co=6001>) would be “Very Strong” in a Richter Magnitude 7 earthquake on the Greenville Fault. Consistent with the County of Alameda policy, the proposed project would be designed to meet applicable Alameda County Building Ordinance standards, which identify specific criteria for seismic hazards. Because proposed facilities would include appropriate design measures to mitigate potential seismic hazards consistent with State and local regulations, potential hazards associated with strong seismic ground shaking would be less than significant.

a-3. Would the project cause seismic-related ground failure, including liquefaction?

Less-than-Significant. Liquefaction is the sudden temporary loss of strength in saturated, loose to medium dense, granular sediments subjected to ground shaking. Liquefaction can cause foundation failure of buildings and other facilities due to the reduction of foundation bearing strength. The project site is mapped as subject to “very low” liquefaction hazards (<http://gis.abag.ca.gov/website/Hazards/?hlyr=liqSusceptibility>). As a condition of approval, the project would be designed to meet applicable Alameda County Building Ordinance standards, which identify specific criteria for seismic and liquefaction hazards. Liquefaction potential on the project site is low because the site is atop a hill, well above the groundwater level and proposed facilities would include appropriate design measures to mitigate potential seismic and liquefaction hazards consistent with State and local regulations. Therefore potential hazards associated with ground failure, including liquefaction would be less than significant.

a-4. Would the project cause landslides?

Less-than-Significant. The project site slopes gently to the west, with some small areas of steeper slope along the southern edge of the site. The project site is not mapped as subject to substantial landslide hazards (<http://gis.abag.ca.gov/website/Hazards/?hlyr=existingLndslid>). The project would not alter runoff or conduct any site grading that would have the potential to result in landslides. Therefore this impact would be less than significant.

b. Would the project result in substantial soil erosion or the loss of topsoil?

Less-than-Significant. The project includes a small amount of grading and gravelling for the parking area and driveway widening. Depending on wind and rain conditions, grading activities could result in the potential for minor erosion of site soils. Compliance with the State Construction General Permit is not required, given that the area of projected land disturbance is less than one acre. A SWPPP would not be required, and the County would not require a Stormwater Permit or a Water Pollution Control Plan. This would be a “Small Project” per Provision C.3.i of the MRP – and the County would require the inclusion of one or more of the site design measures described in that Section. Construction BMP’s should be deployed, but

would not be subject to inspection beyond the building permit requirements. Therefore this impact would be less than significant.

c. Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, differential settlement, liquefaction or collapse?

Less than Significant. As described in item iii) above, liquefaction impacts are considered less-than- significant. In addition, the proposed building would be designed to meet all applicable UBC engineering requirements to ensure that the facilities would not be affected by potential lateral spreading, liquefaction, or collapse. Therefore, the proposed project would result in less-than-significant impacts related to unstable geologic or soil units.

d. Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?

Less than Significant. The project does not include any new foundation construction. Minor impacts to any paving may occur from expansive soils, if present on the site.

e. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

Less-than-Significant Impact. The proposed project would include the upgrading of the existing of a septic system and underground pipes, including new percolation tests to assure proper functioning of the septic system. The soil on the project site has been mapped as having a moderately high capacity to transmit water (USDA 2009). Soils with high percolation rates generally can support and allow the quick and efficient drainage of septic systems. Therefore, soils onsite could adequately support a septic system and this impact would be less than significant. Please also see discussion in Item 3.17 a), and Mitigation Measure Util-1.

3.7 Greenhouse Gas Emissions

Would the project:		Significant Impact	Less Than Significant Impact With Mitigation	Less Than Significant Impact	No Impact
a.	Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b.	Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Environmental Setting

Greenhouse gases (GHGs) are atmospheric gases that capture and retain a portion of the heat radiated from the earth after it has been heated by the sun. The primary GHGs are carbon dioxide (CO₂), methane (CH₄), and nitrous oxide (N₂O), ozone, and water vapor. While GHGs are natural components of the atmosphere, CO₂, CH₄, and N₂O, are also emitted from human activities and their accumulation in the atmosphere over the past 200 years has substantially increased their concentrations. This accumulation of GHGs has been implicated as the driving force behind global climate change.

Human emissions of CO₂ are largely by-products of fossil fuel combustion, whereas CH₄ results from off-gassing associated with organic decay processes in agriculture, landfills, etc. Other GHGs, including hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride, are generated by certain industrial processes. The global warming potential of GHGs are typically reported in comparison to that of CO₂, the most common and influential GHG, in units of “carbon dioxide-equivalents” (CO₂e).²

There is international scientific consensus that human-caused increases in GHGs have and will continue to contribute to global warming. Potential global warming impacts in California may include, but are not limited to, loss in snow pack, sea level rise, more extreme heat days per year, more high ozone days, more large forest fires, and more drought years. Secondary effects are likely to include a global rise in sea level, impacts to agriculture, changes in disease vectors, and changes in habitat and biodiversity.

² Because of the differential heat absorption potential of various GHGs, GHG emissions are frequently measured in “carbon dioxide-equivalents,” which present a weighted average based on each gas’s heat absorption (or “global warming”) potential.

The Bay Area Air Quality Management District (BAAQMD) is the primary agency responsible for air quality regulation in the nine-county San Francisco Bay Area Air Basin. As part of that role, the BAAQMD has prepared *CEQA Air Quality Guidelines* that provide CEQA thresholds of significance for operational GHG emissions from land use projects (i.e., 1,100 metric tons of CO₂e per year, which is also considered the definition of a cumulatively considerable contribution to the global GHG burden and, therefore, of a significant cumulative impact), but has not defined thresholds for project construction GHG emissions. The *CEQA Air Quality Guidelines* methodology and thresholds of significance have been used in this Initial Study's analysis of potential GHG impacts associated with the Project.

Alameda County's *Community Climate Action Plan (CCAP)* was adopted as part of the *Alameda County General Plan* in February 2014. The CCAP outlines a course of action to reduce community-wide GHG emissions generated within the unincorporated areas of Alameda County - 15 percent below 2005 levels by 2020, with the ultimate goal of 80 percent below 1990 levels by 2050.

Discussion

a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Less-than-Significant Impact. The CalEEMod (California Emissions Estimator Model, Version 2013.2.2) model was used to quantify GHG emissions associated with Project construction activities (for informational purposes), as well as long-term operational emissions produced by Project motor vehicles, energy and water use, and solid waste generation. CalEEMod incorporates GHG emission factors for motor vehicles, electricity from central electric utilities, and water use and solid waste generation; it can also quantify the effectiveness of GHG mitigation measures based on the California Air Pollution Control Officer's Association (CAPCOA) *Quantifying Greenhouse Gas Mitigation Measures* and the California Climate Action Registry *General Reporting Protocol*.

The Project's estimated construction and operational GHG emissions are presented in Table 5. The estimated construction GHG emissions are 4.5 metric tons of CO₂e (for which there is no BAAQMD CEQA significance threshold). The Project's net new GHG operational emissions would be 69.3 metric tons per year, which is substantially below the BAAQMD threshold of 1100 metric tons and, thus, less than significant.

Table 5: Project Greenhouse Gas Emissions

Emission Source	Project GHG CO2e (metric tons per year)
Construction	
Total	4.5
Operations	
Area Sources	0.0
Energy	23.7
Mobile	29.8
Solid Waste	15.0
Water	0.8
Total Operational Emissions	69.3
BAAQMD GHG CEQA Significance Threshold	1100
Potentially Significant?	No

b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Less-than-Significant Impact. Assembly Bill 32 (AB 32; Núñez, Chapter 488, Statutes of 2006), the California Global Warming Solutions Act, requires the CARB to lower State GHG emissions to 1990 levels by 2020—a 25 percent reduction statewide with mandatory caps for significant GHG emission sources. AB 32 directed CARB to develop discrete early actions to reduce GHG while preparing the *Climate Change Scoping Plan* in order to identify how best to reach the 2020 goal.

Statewide strategies to reduce GHG emissions to attain the 2020 goal include the Low Carbon Fuel Standard (LCFS), the California Appliance Energy Efficiency regulations, the California Renewable Energy Portfolio standard, changes in the motor vehicle corporate average fuel economy (CAFE) standards, and other early action measures that would ensure the state is on target to achieve the GHG emissions reduction goals of AB 32.

In an effort to make further progress in attaining the longer-range GHG emissions reductions required by AB 32, Governor Brown identified in his January 2015 inaugural address an additional goal (i.e., reducing GHG emissions to 40% below 1990 levels by 2030) to be attained by implementing several key climate change strategy “pillars:” (1) reducing present petroleum use in cars and trucks by up to 50 percent; (2) increasing from one-third to 50 percent the share of California’s electricity derived from renewable sources; (3) doubling the energy efficiency savings achieved at existing buildings and making heating fuels cleaner; (4) reducing the release of methane, black carbon, and other short-lived GHGs; (5) managing farm and rangelands, forests

and wetlands to more efficiently store carbon; and (6) periodically updating the State's climate adaptation strategy.

In January 2010, the State Building Standards Commission adopted updates to the California Green Building Standards Code (CALGreen), which went into effect in January 2011. CALGreen contains requirements for construction site selection, storm water control during construction, construction waste reduction, indoor water use reduction, material selection, natural resource conservation, and site irrigation conservation. CALGreen provides for design options allowing the designer to determine how best to achieve compliance for a given site or building condition. CALGreen also requires building commissioning, which is a process for verifying that all building systems, like heating and cooling equipment and lighting systems, are functioning at their maximum efficiency. CALGreen provides the minimum standard that buildings need to meet in order to be certified for occupancy, but does not prevent a local jurisdiction from adopting a more stringent requirements. CALGreen is intended to (1) reduce GHG emissions from buildings; (2) promote environmentally responsible, cost-effective, healthier places to live and work; and (3) reduce energy and water consumption. By being built in accord with CALGreen, the Project would not conflict with AB 32 and the strategies being implemented to achieve its goals.

In summary, the Project would not conflict with applicable plans, policies, and regulations adopted for the purpose of reducing GHG emissions and, thus, would have a less than significant impact.

3.8 Hazards and Hazardous Materials

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

Environmental Setting

Hazardous waste includes household and industrial products that cannot be safely disposed of in the trash or poured down sinks or storm drains. This includes used motor oil, batteries, solvents, poisons, chemicals, oil- and latex-based paints, and automotive fluids.

No contaminated areas within the Project site or its immediate vicinity are listed in the California Department of Toxic Substances Control (DTSC) Envirostor Database, the State Water Resources Control Board List of Leaking Underground Storage Tank Sites (GeoTracker database), or the State Water Resources Control Board list of solid waste disposal sites with waste constituents above hazardous waste levels outside the waste management unit (California Department of Toxic Substances Control, 2015).

The Project site is not mapped as within a wildland fire hazard area (http://frap.fire.ca.gov/webdata/maps/alameda/fhszl_map.1.pdf). The Cal Fire Hazard Severity zones have been determined based on a combination of fire behavior and the probability of flames and embers threatening buildings. Fire behavior is based on fuel type, slope, and severe fire weather (Cal Fire – FRAP, 2015).

The nearest schools to the project site are Valley Montessori School (1273 North Livermore Avenue, Livermore, CA 94551), located approximately 0.8 miles south of the site, and no other schools are located within 1 mile of the site.

Discussion

a. Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Less-than-Significant Impact. Construction of the proposed project would result in the transport of materials generally regarded as hazardous materials. It is anticipated that limited quantities of miscellaneous hazardous substances, such as gasoline, diesel fuel, hydraulic fluids, paint, and other similarly related materials would be brought to the project site, used, and stored during the construction period. The types and quantities of materials to be used could pose a significant risk to the public and/or the environment if not properly handled.

State agencies regulating hazardous materials are the California Environmental Protection Agency (Cal/EPA) and the Office of Emergency Services (OES). The California Highway Patrol (CHP) and California Department of Transportation (Caltrans) enforce regulations for hazardous materials transport. Within Cal/EPA, the Department of Toxic Substances Control (DTSC) has primary regulatory authority to enforce hazardous materials regulations. State hazardous waste regulations are contained primarily in Title 22 of the California Code of Regulations (CCR). The California Occupational Health and Safety Administration (Cal OSHA) has developed rules and regulations regarding worker safety around hazardous and toxic substances.

Because the applicant and its contractors would implement and comply with all relevant local, State, and Federal regulations related to the handling, transport, and storage of hazardous materials, impacts related to creation of significant hazards to the public through routine transport, use, and disposal of hazardous materials would not occur. Additionally, because the applicant would be required to adhere to Best Management Practices (BMPs) during project construction, impacts from potential spills of hazardous materials would be minimized. Therefore, this impact would be less than significant.

b. Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Less-than-Significant Impact. During construction of the proposed project, fuels and lubricants have the potential to be released into the environment, causing environmental and/or human exposure to these hazards. However, as described in item “a” above, the applicant and its contractors would handle, store, and dispose of all hazardous materials used onsite in accordance with all applicable local, State, and federal laws regulating the uses of hazardous materials. Therefore, this would be a less-than-significant impact.

c. Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

No Impact. As discussed in the Setting section, above, there are no existing or proposed schools located within 0.5 mile of the project site. Therefore, no impacts would occur related to emissions or handling of hazardous materials within 0.5 mile of an existing or proposed school.

d. Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

No Impact. The Project site does not include any sites on the list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. The Project would have no impact. As described in the Setting section, above, the project area is not identified by EPA or DTSC as a hazardous materials site (EPA 2015; DTSC 2015). Thus, the proposed project would not create a significant hazard to the public or to the environment as a result of existing hazardous material contamination.

e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?

No Impact. The nearest publicly operated airport is the Livermore Municipal Airport (636 Terminal Circle Livermore, CA 94551) located approximately 2.8 miles to the west-southwest of the project site. The City of Livermore has established in the Land Use Element of the 2003-2025 General Plan, an Airport Protection Area, which is intended to keep incompatible

uses from encroachment upon the airport. The proposed project is not included in this area (City of Livermore 2009). Further, the proposed project does not include any new structures or include any activities that would impair operations of the Livermore Municipal Airport or any other airport use. The proposed project would not affect airport safety. Therefore, no impact would occur.

f. For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?

No Impact. The nearest private air transport facility is the Meadowlark Field (4300 Greenville Rd Livermore, CA 94550) located approximately 8.4 miles to the east of the project site. The proposed project does not include any structures or include any activities that would impair operations or air safety of these private air transport facilities. Therefore, no impact would occur.

g. Would the project impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan?

No Impact. No new facilities would be constructed such that the project would permanently impair implementation of or physically interfere with the County's adopted emergency response plan or emergency evacuation plan. As a result, no impacts are anticipated.

h. Would the project expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

Less-than-Significant Impact. The project area is located on agriculture land in the Livermore Valley of Alameda County just outside the city limits of Livermore, California. The surrounding land uses consist of agricultural uses and rural, low-density residential development. The threat of wildland fires in the project vicinity would be minimal because most of the surrounding area is either developed or farmland (Cal Fire-FRAP, 2015). Therefore, wildland fire risks associated with the project would be considered less-than-significant.

3.9 Hydrology and Water Quality

Would the project:		Significant Impact	Less Than Significant Impact With Mitigation	Less Than Significant Impact	No Impact
a.	Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b.	Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c.	Substantially alter the existing drainage pattern of the site or area, including the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on-or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d.	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on-or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e.	Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f.	Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g.	Place housing within a 100-year flood	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	hazard area as mapped on a Federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?				
h.	Place within a 100-year flood hazard area structures that would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
i.	Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
j.	Be subject to inundation by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

The proposed project is located within the Arroyo Mocho watershed in the Livermore Valley of east Alameda County just outside the Livermore city limits. Surface drainage features in the Livermore Valley include Arroyo Valley, Arroyo Mocho, and Arroyo las Positas as principal streams, with Alamo Creek, South San Ramon Creek, and Tassajara Creek as minor streams. Cayetano Creek is near to the site, at about 0.5 miles to the west, and Arroyo Las Positas is about 0.1 miles from the site, just across I-580, to the south. All streams converge on the west side of the basin to form Arroyo de la Laguna, which flows south and joins Alameda Creek in Sunol Valley. No water bodies are located on the project site.

Water for the project site is pumped from an onsite well permitted by Alameda County Flood Control and Water Conservation District, Zone 7 (Zone 7).

The 100-year floodplain is defined as the area that will be inundated by the flood event having a 1-percent chance of being equaled or exceeded in any given year. The project area is located outside of the FEMA 100-year floodplain (FEMA 2015). The nearest mapped 100-year flood plain is along Arroyo las Positas, across I-580 from the site and west of Livermore Avenue.

Discussion

a. Would the project violate any water quality standards or waste discharge requirements?

Less-than-Significant. Construction of the proposed project would not result in any increased levels of water pollution to offsite or downstream areas as a result of construction activities. During construction activities, stormwater runoff could contaminate offsite water bodies through the accidental discharge of construction-related fuels, oils, hydraulic fluid, and other hazardous substances. Because the applicant would prepare and adhere to a Stormwater Pollution Prevention Plan (SWPPP) and associated Best Management Practices (BMP) during

project construction, potential for runoff generated at the project site to contaminate the offsite water bodies would be reduced to a less-than-significant level.

b. Would the project substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?

Less than Significant. The project would result in a small increase in the impervious surface areas on the project site as a result of the new paved entry apron and minor new paved areas near the existing house. The addition of impervious surfaces could reduce infiltration of precipitation into the groundwater. Because the proposed project result in a relatively small surface area being converted to impervious surfaces, and because adjacent land surfaces would continue to provide adequate infiltration capacity and groundwater recharge, no significant changes in groundwater infiltration or level is anticipated. This would be a less-than- significant impact.

c. Would the project substantially alter the existing drainage pattern of the site or area, including the alteration of the course of a stream or river, in a manner, which would result in substantial erosion or siltation on-or off-site?

Less than Significant. Construction of the project would result in minimal soil-disturbing activities and the installation of new impervious surfaces. These activities would not result in increased discharge of stormwater runoff to drainage facilities, which could cause additional erosion, siltation, or both onsite and offsite. This would be a less-than-significant impact.

d. Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on-or off-site?

Less than Significant. Construction of the proposed project would result in the generation of additional stormwater flows from new impervious surfaces during storm events. However, the increase in stormwater runoff would be very minor (due to the very small increase in impervious surface over existing conditions), and most of the runoff would percolate into underlying soils and groundwater around the impervious surface. The project would not result in the alteration of the course of any surrounding stream or river. Therefore, the project would not result in onsite or offsite flooding and this would be a less-than-significant impact.

e. Would the project 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?

Less than Significant. As described in item d) above, the project would not substantially increase the runoff from impervious surfaces onsite. Further, appropriate stormwater and water quality measures would be in place to prevent the release of pollutants to onsite

stormwater or downstream water bodies during construction activities. Therefore, this would be a less-than-significant impact.

f. Would the project substantially degrade water quality?

Less than Significant. New impervious surfaces that would be constructed as part of the project would collect small amounts of oils, sediments, brake dust, and other potential water pollutants. During storm events, these pollutants could be carried by runoff and potentially discharged into surrounding soil on the project site or downstream from the property. This will not substantially degrade water quality.

Sanitary wastewater is currently collected and treated by an onsite septic system that discharges effluent to the adjacent areas where it percolates to underlying soils. The current system is inadequate to meet project demands and a series of improvements are proposed as part of the project. Sanitary wastewater increase would be considered a less-than-significant impact. See also the discussion of this topic in Item 3.17, and Mitigation Measure Util-1.

g. Would the project place housing within a 100-year flood hazard area as mapped on a Federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?

No Impact. The proposed project would not include construction of any new housing and the project area is located outside of the FEMA 100-year floodplain. Therefore no impact would occur.

h. Would the project place within a 100-year flood hazard area structures that would impede or redirect flood flows?

No Impact. The project site is located outside of the FEMA 100-year floodplain and no new building structures are proposed for construction. No impact would occur.

i. Would the project expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam?

No Impact. The proposed project would be located on the top of a knoll that is not subject to flooding in the event of a dam failure. There are no levees, dams, or flood control structures in the vicinity of the project site that would have the potential to affect the site if they failed. Therefore, no impact would occur.

j. Be subject to inundation by seiche, tsunami, or mudflow?

No Impact. The project area is not located in the vicinity of any lakes or other large water bodies that would be susceptible to seiche, in the event of seismic activity. Additionally, the project area is not located in the vicinity of any tidally-influenced waters, and is at an elevation above 65 feet sea level. Therefore, the project area would not be susceptible to tsunami hazards. The project structures are located atop a knoll and not in the vicinity of any steep slopes, minimizing the potential effects of any mudflows. No impact would occur.

3.10 Land Use and Planning

Would the project:		Significant Impact	Less Than Significant Impact With Mitigation	Less Than Significant Impact	No Impact
a.	Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b.	Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c.	Conflict with any applicable habitat conservation plan or natural community conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

The proposed project is located in unincorporated rural eastern Alameda County. The site is surrounded by other agricultural properties and rural residences to the east, west, and north; Interstate 580 abuts the site to the south. As a rural property, the project site is not in an “established community”.

The project site is designated as Large Parcel Agriculture (LPA) under the East County Area Plan (ECAP) (Alameda County, revised November 2000). LPA establishes minimum parcel sizes for specific areas of the East County (100 acres minimum for subdivisions) and maximum building intensity (floor area ratio or FAR). Subject to the provisions, policies and programs of the ECAP, the LPA designation permits one single family residence per parcel, agricultural uses, agricultural processing facilities, public and quasi-public uses, quarries, landfills and related facilities, many other specified uses, and unspecified “similar uses compatible with agriculture” (ECAP, 1994 as amended 2000 and 2002, p. 47)

The project site is zoned “A” (Agriculture). As specified in the Alameda County Zoning Ordinance, Chapter 17.52.580 – Conditional Uses – Board of zoning adjustments, a conditional use of a “Church of wood frame or more lasting construction” may be approved by the board of zoning adjustments in any district. The proposed building would be used as a place of worship for the public. The intent of the “A” district is to “promote implementation of general plan land use proposals for agricultural and other nonurban uses, to conserve and protect existing agricultural uses, and to provide space for and encourage such uses in places where more

intensive development is not desirable or necessary for the general welfare.” (Chapter 17.06.010)

Discussion

a. Would the project physically divide an established community?

No Impact. The project would be reuse of an existing house and driveway/parking improvements on the project lot. Therefore it would not have the potential to disrupt or divide the physical arrangement of an existing community through access or installation of physical barriers. Therefore, no impact would occur.

b. Would the project conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

Less than Significant Impact. The proposed project would be permitted as a “Church of wood frame or more lasting construction” under Chapter 17.52.580 of the County of Alameda Zoning Ordinance.

Policy 50 of the ECAP (p. 17) states, “the County shall promote the location of community facilities near major transportation corridors and within existing city downtown areas.” The project is near I-580, a major transportation corridor, although not within a downtown area.

Therefore, the project would be consistent with the site’s zoning, and some of the ECAP policies. Under CEQA, non-compliance with a plan or policy itself is not an environmental impact because it is not a physical effect on the environment, but may be considered significant to the extent it can be attributed to physical environmental impacts. In this instance, the project is relatively small, serves a very small minority of persons in the Tri-Valley area, and all of its physical and environmental consequences can be reduced to less than significant impacts, as described in this Initial Study. Therefore the extent to which the project conflicts with the ECAP is less than significant.

c. Would the project conflict with any applicable habitat conservation plan or natural community conservation plan?

No Impact. The project site is located within the area covered by the East Alameda County Conservation Strategy (EACCS). The EACCS does not directly result in permits for any participating local agency, and therefore, is not a Habitat Conservation Plan or a Natural Community Conservation Plan. Instead, the EACCS is a tool to inform decisions during standard environmental permitting processes for projects that occur in the study area. Potential project-related impacts to all species and habitat types covered by the EACCS were evaluated. The proposed project would not result in the loss of habitat used by covered species or in the loss of a covered habitat type.

3.11 Mineral Resources

Would the project:		Significant Impact	Less Than Significant Impact With Mitigation	Less Than Significant Impact	No Impact
a.	Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b.	Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

The project site is located within lands covered by the East County Area Plan (ECAP). No mineral resources of regional significance or mineral recovery sites have been identified by the California Geological Survey as existing on the project site (CDG 2015).

Discussion

a. Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

No Impact. The project site is not located within a mapped mineral resource zone (City of Livermore 2014). No loss of availability of a known mineral resource that would be of value to the region and the residents of the state would occur. Further, there would be no change in use of the project site and the project would not preclude extraction of mineral resources in the future. Therefore, no impacts would occur.

b. Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

No Impact. The ECAP has not included the project site as a locally important mineral resource recovery site. Therefore, no impacts would occur.

3.12 Noise

Would the project:		Significant Impact	Less Than Significant Impact With Mitigation	Less Than Significant Impact	No Impact
a.	Exposure of persons to, or generation of, noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b.	Exposure of persons to or generation of, excessive ground borne vibration or ground borne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c.	A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d.	A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e.	For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f.	For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

Sound is created when vibrating objects produce pressure variations that move rapidly outward into the surrounding air. The more powerful the pressure variations, the louder the sound perceived by a listener. The decibel (dB) is the standard measure of sound loudness relative to the human threshold of perception. Noise is defined as a sound or series of sounds that may be intrusive, objectionable or disruptive to people or wildlife when occurring above certain levels as measured in decibels. Many factors influence how a sound is perceived and whether it is considered disturbing to a listener; these include the physical characteristics of sound (e.g.,

loudness, pitch, duration, etc.) and other factors relating to the situation of the listener (e.g., the time of day when it occurs, the acuity of a listener’s hearing, the activity of the listener during exposure – is s/he sleeping, working, talking? etc.). Environmental noise has many documented undesirable effects on human health and welfare, either psychological (e.g., annoyance and speech interference) or physiological (e.g., hearing impairment and sleep disturbance).

The Project site and vicinity was surveyed to assess the compatibility of the proposed Project land use with existing noise levels and to identify existing noise-sensitive uses that could be adversely impacted by Project development. During this survey, short-term noise measurements were taken on site during the daytime off-commute-peak, as shown in Table 6, to establish baseline noise levels that could affect the proposed Project use after it is constructed. The most important source contributing to on-site noise levels is I-580 traffic, which was always perceptible during the time spent on site. In contrast, noise from other sources (i.e., large trucks passing on North Livermore Avenue, small aircraft from flight operations associated with Livermore Municipal Airport) occasionally intrude on and briefly exceed the background levels established by I-580 traffic.

Table 6: Project site noise measurement data and survey observations

Location	Time Period	Noise Levels (dBA)*	Observations of Contributing Noise Sources
Location #1 Near Existing Building, Front Patio, South Edge	Mid-Day Off Commute Peak Tues. 10/27/15 10 am – 11 am	Leq: 53.6 L _{dn} : 52** Max: 61.8 Min: 50.5	Line of sight and path of direct noise propagation from I-580 blocked by hilly terrain. Traffic noise varies between 50-55 dBA; occasional peaks above 55 dB from small planes and a large truck pass-by on North Livermore Avenue.
Location #2 About 150 feet South of Location #1	Mid-Day Off Commute Peak Tues. 10/27/15 11 am – 12 noon	Leq: 57.0 L _{dn} : 55** Max: 61.8 Min: 51.9	Meter relocated to a point at which large sections of I-580 are visible, with consequent direct noise propagation. Traffic noise varies between 55-60 dB; small plane pass, peak > 60 dBA.

* Decibels are said to be **A-weighted**, abbreviated as dBA, when corrections are made to the measurements to reflect the known, varying sensitivity of the human ear to sounds of different frequencies. The **Equivalent Sound Level**, abbreviated as **L_{eq}**, is a constant sound level that carries the same sound energy as the actual time-varying sound over **

According to Federal Transit Administration (FTA) methodology, L_{dn} can be adequately estimated by subtracting 2 dBA from the measured value of the daytime hourly L_{eq}; see *Transit Noise and Vibration Impact Assessment, Appendix D, Determining Existing Noise* (FTA, May 2006).

Policies and Standards

As the Project site is located in an unincorporated area of Alameda County, the Noise Element of the *Alameda County General Plan* (County Noise Element; amended 1994) is the primary source for applicable noise control policies and exposure standards. The following content from the County Noise Element is relevant to Project circumstances:

- The County Noise Element recognizes that many sources contribute to ambient noise in Alameda County, but that *“transportation systems are the largest single contributor.”*
- County Noise Element policies, which guide development in the County’s unincorporated areas, include the following: *“Goal #2: Alameda County should encourage noise compatible land uses near highways and other noise generators.”*

The *East County Area Plan* (ECAP; revised 2000) is an adjunct to the *Alameda County General Plan*, containing planning policies and standards that apply specifically to the unincorporated areas of eastern Alameda County. With regard to mitigating/avoiding problems of sensitive population exposure to environmental noise, the ECAP includes:

- *“Policy 289: The County shall limit or appropriately mitigate new noise-sensitive development in areas exposed to projected noise levels above 60 dB based on the California Office of Noise Control Land Use Compatibility Guidelines “[which uses the Day–Night Average Sound Level, abbreviated as L_{dn} , a 24–hour average sound level, with a 10–decibel penalty added to sound levels occurring at night between 10:00 p.m. and 7:00 a.m.]”*
- The ECAP also contains a table (Table 11) of noise contour³ distances from freeways and major roadways in eastern Alameda County, which includes the following for I-580.

I-580 Noise Contour Distances (Year 2010)

70 dB L_{dn} – 447 feet
65 dB L_{dn} – 963 feet
60 dB L_{dn} – 2075 feet

While the policies and standards of the Noise Element of the *City of Livermore General Plan 2003-2025* (City Noise Element; amended 2013) have no legal status in the unincorporated areas of Alameda County, it is a newer document and contains more recent noise measurement and modeling data applicable to Project circumstances.

- The City Noise Element year 2025-noise contour distances from I-580 are 15% greater than the corresponding distances shown in the ECAP.

³ A noise contour is a line where the noise levels are equal. For example, a noise contour line would delineate a boundary where a noise level of 50 dB L_{dn} may occur away from a given source. Noise levels on one side of the line would be higher, and on the other side of the line they would be lower. Typically noise contours are drawn at 3- or 5-dB intervals. Noise contours are often developed for freeways, airports and other major stationary noise sources.

I-580 Noise Contour Distances (Year 2025)

70 dB L_{dn} – 516 feet

65 dB L_{dn} – 1108 feet

60 dB L_{dn} – 2385 feet

- The City Noise Element contains a graphic (Figure 9-2) of future (Year 2030) aircraft noise contours around Livermore Municipal Airport. It shows that the 65 dBA, 60 dBA and 55 dBA contours are confined to an area around the Airport that does not extend north of I-580. Thus, aircraft influences on Project site noise levels are now less than 55 dBA and are expected to remain so at least through 2025.

Discussion

a. Would the project result in the 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?

Less than Significant. The existing on-site building proposed for renovation under Project plans would contain indoor areas for religious, educational and communal use, with the caretaker's residence just south of the community center building continuing in operation, all of which are considered noise-sensitive. County Noise Element policies require that the potential impacts to these project uses from existing noise sources be addressed in this Initial Study.

Noise contour data in the County Noise Element and Livermore Noise Element imply that locations within 400-500 feet of the centerline of I-580, which encompass the proposed center and caretaker residence locations in the northeast corner of the Project site, would have noise levels near 70 dBA L_{dn} . This would imply the likely need for freeway traffic noise abatement to avoid interference with the proposed noise-sensitive future uses. However, noise measurements taken during the Project site survey found an off-commute-peak daytime L_{eq} of about 54 dBA (with an estimated L_{dn} of 52 dBA, using FTA methodology) at the community center/caretaker residence building locations. This discrepancy between modeled and measured noise levels is explained by the substantial influence of terrain in blocking noise propagation from I-580; the hilltop location of the community center building and caretaker residence is largely shielded from I-580 traffic noise. Thus, the noise exposure intensity at the site of the community center building and caretaker residence is well within the acceptable range identified in the County Noise Element.

With standard acoustical insulation provided by the walls and windows (closed) for a building of its type, the new community center building would attain interior noise levels protective of community welfare; this impact would be less than significant.

b. Would the project result in the exposure of persons to or generation of, excessive ground borne vibration or ground borne noise levels?

Less than Significant. Just as vibrating objects radiate sound through the air, if they are in contact with the ground they also radiate acoustical energy through the ground. If such an object is massive enough and/or close enough to an observer, the ground vibrations can be perceptible and, if the vibrations are strong enough (as measured in vibration decibels, abbreviated VdB), they can cause annoyance to the observer and/or damage to buildings. Background ground vibration levels in most inhabited areas are usually 50 VdB or lower, well below the threshold of perception (i.e., typically about 65 VdB).

There are no policies or standards in the County Noise Element for avoiding/reducing structural damage or annoyance from vibration impacts. However, it is most common for government agencies to rely on assessment methodologies, impact standards and vibration-reduction strategies developed by the Federal Transit Administration (FTA) in *Transit Noise and Vibration Impact Assessment*. According to the FTA, limiting vibration levels to 94 VdB or less would avoid structural damage to wood and masonry buildings (which are typical of most residential structures), while limiting vibration levels to 80 VdB or less at residential locations would avoid significant annoyance to the occupants.

The most vibration-intensive piece of construction equipment is a pile driver, but no pile driving will be required for the Project. Other types of construction equipment are far less vibration-intensive. Heavily loaded trucks or tracked earth-moving machinery could pose a damage or annoyance threat if they would regularly and often come within 25 feet or 100 feet, respectively, of a vibration-sensitive receptor during construction. The Project would not require heavy trucks or earth-moving machinery, and the closest existing residential use to the Project site is about 1000 feet from the locus of Project construction activity. Thus, the Project's construction vibration impact severity would be less than significant.

c. Would the project result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

Less than Significant. After Project construction, the only noise source that could permanently change the noise exposure circumstance of nearby sensitive uses is the motor vehicle traffic it would put on local roadways. There are no policies or standards in the County Noise Element that specify acceptable permanent traffic noise increments from developments. The Federal Transit Administration has the most authoritative criteria for what constitute substantial permanent traffic noise increments. For noise sensitive uses (i.e., existing residential) in the Project site vicinity, where daily and peak hour noise levels range from 50 dBA to 60 dBA (as estimated from short-term noise measurements taken on the Project site), a Project-induced noise level increment would have to be up to two dBA or greater to be considered significant. Using FTA traffic noise modeling methodology to estimate noise level increases on local streets due to the Project shows (see Table 7) that noise increments from increased traffic due to the project (see Section 3.16, Traffic, and Appendix B, Traffic Report for traffic volumes) would be 0.3 dBA or less, far short of FTA significance criteria and therefore would be less than significant. Festival events held approximately four times a year may be expected to result in

perhaps double the increased in noise level, but would still be less than a whole dBA increment (e.g., from 52 to 53 dBA).

Table 7: Motor Vehicle Incremental Noise Levels on Local Streets in the Project Site Vicinity

Street Segment/Traffic Scenario	Traffic Noise Increase Compared with Existing Levels (Ldn dBA)
North Livermore Avenue North of I-580	
Wednesday (religious services)	0.04
Saturday (community use)	0.26
Sunday (religious services)	0.28

d. Would the project result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

Less than Significant. The Federal Highway Administration (FHWA) Roadway Construction Noise Model (RCNM) was used to estimate the maximum and average outdoor noise levels during Project construction that the closest residences would experience, as presented in Table 8. Project construction activities would not expose the closest existing residential uses outdoor noise levels higher than existing levels. Project construction noise impacts would be less than significant.

Table 8: Modeled Construction Noise Levels at the Closest Residential Uses to the Project Site

Receptor	Distance from Construction Activity (feet)	Maximum Construction Daytime Noise Level (dB)	Average Construction Daytime Noise Level (dB)
Closest Residential to Project site (west of North Livermore Avenue)	1000	52	51

Source: Federal Highway Administration, Roadway Construction Noise Model (RCNM).

e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

Less than Significant. The Project site is about two miles northeast of the Livermore Municipal Airport. Noise contour maps in the City Noise Element show that aircraft operation noise at the

Project site is less than 55 dBA L_{dn} , which supports the observation during the Project noise survey that aircraft noise has a minimal impact at the project site. Aircraft noise impacts are less than significant.

f. For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?

No Impact. The proposed Project site is not located in the vicinity of a private airstrip. Therefore, no Impact would occur.

3.13 Population and Housing

Would the project:		Significant Impact	Less Than Significant Impact With Mitigation	Less Than Significant Impact	No Impact
a.	Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b.	Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c.	Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

There are two single-family houses on the site, one of which is occupied.

Discussion

a. Would the project 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)?

No Impact. The proposed project does not include any new homes or employment opportunities that could increase population directly or indirectly. Rather, the proposed project would serve as a place of worship for the Sikh community resulting in weekly gatherings of no more than 100 persons on site, and occasional larger gatherings. The proposed project would not add a service that would induce population growth in the region (of Sikh Community members or others) because the service already exists at a temporary location in Dublin. Therefore, the project would not require any new infrastructure that could lead to direct or indirect population growth and no impact would occur.

b. Would the project displace substantial numbers of existing housing units, necessitating the construction of replacement housing elsewhere?

No Impact. The proposed project would result in displacement of one existing house. This would have no discernable impact to housing in Alameda County.

c. Would the project displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

No Impact. Construction and operation of the proposed project would result in displacement of one household from a single house (the large house; the modular house is unoccupied), which is owned and occupied by members of the applicant, the Tri-Valley Sikh Center. One family that previously lived on the premises was displaced voluntarily, and was replaced by three members of the Sikh community. After the project is complete, the caretaker's house would continue to be occupied. The effect on one household does not constitute 'substantial numbers of people'. Therefore, no impact would occur.

3.14 Public Services

Would the project:		Significant Impact	Less Than Significant Impact With Mitigation	Less Than Significant Impact	No Impact
a.	Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the 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:				
1)	Fire Protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2)	Police Protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3)	Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4)	Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
5)	Other Public Facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

The Alameda County Fire Department (ACFD) has 30 fire stations that provide fire services to the unincorporated areas of the Alameda County. The nearest fire station that provides service to the project site is Fire Station #8 (1617 College Avenue, Livermore, CA 94550), which is located approximately two miles south of the project site.

The project site is in unincorporated Alameda County, and police services would be provided by the Alameda County Sherriff's office's San Leandro substation, located at 15001 Foothill Boulevard in San Leandro.

The project site lies within the boundaries of the Livermore Valley Joint Unified School District (LVJUSD). No parks exist within the immediate vicinity of the project site. The proposed project does not include any new homes or employment opportunities that could increase population

directly or indirectly. Therefore park and school use would not be affected by the proposed project.

Discussion

a. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the 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.

Less-than-Significant Impact. The proposed project is not an employment- or resident-generating land use that would increase demands for these services. Therefore no new or expanded public service facilities or services would be required. Therefore, no impact would occur.

As a place of worship the project would need to comply with codes, regulations and standards applicable to the project. The project would be required to comply with all Alameda County Fire Department – Fire Prevention Bureau, requirements pertaining to occupancy classification, type of construction, the installation of NFPA-13 compliant fire sprinklers, location of onsite fire hydrants, access roads, floor plan and use of the building, emergency exit plans for the project site. (AFCD 2015).

3.15 Recreation

Would the project:		Significant Impact	Less Than Significant Impact With Mitigation	Less Than Significant Impact	No Impact
a.	Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b.	Does the project include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c.	Physically degrade existing recreational resources?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

There are no parks or recreational facilities within the immediate vicinity of the project site, nor does the project represent a new recreational facility. Also, no permanent housing or employment generating development is proposed which might increase the use of recreational facilities nearby.

Discussion

a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

No impact. There would be no new employment opportunities or residential land uses that would increase demand for recreational facilities. Therefore, no impact would occur.

b. Does the project include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?

No Impact. As described in item a) above, there would be no new employment opportunities or residential land uses that would increase demand for recreational facilities. Therefore, no impact would occur.

c. Would the project physically degrade existing recreational resources?

No Impact. The proposed project involves the remodeling of an existing house to a religious gathering center. No increased employment would be required, as the center currently operates in Dublin. Further, no new housing is proposed, and one existing house would be converted from residential to religious purposes. Therefore, the project would not result in increased use of existing parks or other recreational facilities and no impact would occur.

3.16 Transportation and Traffic

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

Environmental Setting

PHA Transportation Consultants (PHA) has completed a study to evaluate the potential traffic impact of the proposed project (PHA Transportation Consultants, 2015). It is included as Appendix B to this Initial Study. The study evaluated project traffic generation, distribution, operations, access, and parking and focusing on potential impacts on North Livermore Avenue.

The proposed project site is on the east side of N. Livermore Avenue just north of Interstate I-580. Access to and from the site is via N. Livermore Avenue and I-580. I-580 is a regional freeway providing east-west access between the Richmond and Marin County in the west and Livermore and Tracy in the east. N. Livermore Avenue connects central Livermore in the south and the unincorporated area of Alameda County to the north. The segment north of I-580 is a two-lane rural road providing access to several large rural residences and rural residential area. The area in the vicinity of the proposed project site, north of I-580 is mostly agricultural or undeveloped. The posted speed limit on N. Livermore Avenue is 50 mph.

According to traffic volume counts collected in mid October 2015, N. Livermore carries up to 4,800 vehicles per day (vpd) in both directions during weekdays and between 2,200 and 3,700 vpd during weekends. A close review of the traffic volume indicated that traffic peaks during the morning commute hours (5-10 am) in the southbound direction and afternoon commute hours (3-5 pm) in the northbound direction. There is little traffic between and after the commute peaks.

While this two-lane segment of N. Livermore Avenue has the ability to carry a daily volume of 15,000 vehicles per day. The current traffic volume is considered high since the area is mostly agricultural and undeveloped with only a handful of rural residences. According to neighbors in the area, and confirmed by County staff, most of the traffic is cut-thru traffic travelling between Vasco Road and I-580. (PHA 2015).

Discussion

a) **Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?**

Less than Significant. The PHA study found that the proposed project would not adversely affect traffic operations nor would it conflict with any transportation-related plans or policies, as detailed below.

Trip Generation

PHA conducted a trip-generation analysis for the proposed center based on the anticipated activities and number of attendees. In view of the activity schedule, the center is expected to generate about 20 trips (10 inbound and 10 outbound) on Wednesday evenings, about 70 trips (35 inbound and 35 outbound on Saturdays and Sundays during the day. According to the project proponent, community meals, birthday parties and other activities would be held concurrently during Saturday and Sunday service, attended by the same member group and would not generate additional traffic. The center would hold festivals four times a year and may have 150 to 200 attendees (approximately 2/3 adults and 1/3 children). All festivals would be held on Sundays concurrent with regularly scheduled Sunday activities.

Based on the meeting schedules and activities as discussed above, the proposed Tri-Valley Sikh Center could add between 20 trips (assuming an average of two adult members per vehicle) and 40 trips (assuming one adult member to each vehicle) to N. Livermore Avenue on Wednesday evening. Based on the same assumptions, the center could create between 70 and 140 trips. When festivals are held, four times a year on weekends, the project could create between 125 and 250 trips. These trip estimates include both inbound and outbound trips. The added trips would not affect peak-hour traffic operation on N. Livermore Avenue and the Interstate I-580 interchange at N. Livermore Avenue as all center activities occur either on weekends or after normal commute hours.

Traffic Operations

Traffic operation analyses indicated all traffic movements at the intersection of North Livermore Avenue and the site access driveway would operate at LOS A and B at all conditions and would have minimal impact on North Livermore Avenue. LOS is a quality measure of traffic flow based on a scale of LOS A-F. LOS A represents free-flowing conditions with no traffic delays and LOS F represent jammed condition with excessive traffic delays.

As discussed above, North Livermore Avenue has the capacity to carry about 12,000 and 15,000 vehicle trips daily at acceptable levels-of-service but currently carries less than 5,000 vehicle trips on weekdays and below 3,000 trips during weekends. The proposed project, assuming a worst case, would generate about 250 trips when festivals are held four times a year on Sundays. During all other weekends, the project would generate fewer than 150 trips. The added trips would not change current traffic LOS or operation and/or circulation on North Livermore Avenue. Therefore it would not create unacceptable traffic conditions on North Livermore Avenue.

The traffic report identified a number of recommendations to facilitate traffic operations on the site. These include:

1. Request County permission to remove or modify the striped median on N Livermore Avenue in front of the site access driveway to permit left-turn traffic movement.
2. Modify the solid white bike lane in front of the access driveway as a dashed line to provide vehicle access.
3. Widen the access driveway to 20 feet and the turning radius at the entrance exit to provide two-way vehicle access and garbage truck and fire engine access. Pave the apron section at the driveway (about 50-foot in length) to prevent loose gravel and debris being dragged onto N. Livermore Avenue.
4. Create and develop a parking layout drawing (map) for center staff to direct overflow parking on the paver section of the site.
5. Develop plans and strategies for parking during festival days when visitors may reach over 100, especially when 200 attendees are expected. These could include carpooling, shuttle service and any other viable parking strategies that will ensure all overflow parking needs are accommodated on the site.

Because there is no potentially significant impact, these recommendations are not required as mitigation measures, but may be included as County conditions of approval of the project.

Public Transit

The project would not have an impact on public transit as there is no bus service on North Livermore near the project site. There are bike lanes in both directions on North Livermore Avenue near the project site and the propose project will have a small impact on bicyclists in a sense that they would have to cross the driveway in the northbound direction.

b. Conflict with an applicable congestion management program, including, but not limited to level of service standard and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways? Less than Significant. See response to item a), above.

c. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?

No Impact. The proposed project would not conflict with any current plans or policies as this segment of North Livermore Avenue is not included in the circulation element of the Alameda County General Plan or the Alameda County Congestion Management program. Please refer to the traffic study prepared by PHA Transportation Consultants in Appendix B.

d. Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible land uses (e.g., farm equipment)?

No Impact. The site access driveway is an existing driveway and currently operates at LOS A and would continue to operate at LOS A and B under the worst-case assumption. The proposed project would not increase hazards at its access driveway or on North Livermore Avenue. The project would widen the access driveway from the current 15 feet to 20 feet, to provide for two-way travel. Additionally, the driveway would be covered with crushed gravel and a 50-foot-long paved apron section from North Livermore Avenue. This would improve safety of access to and from North Livermore Avenue.

PHA conducted traffic operation analyses for the site access driveway to evaluate if the driveway can handle the added vehicle turning movements. The analysis was conducted based on the same two sets of assumptions, i.e. two adult members per vehicle, and the worst-case of one adult member per vehicle. Results indicated that traffic on N. Livermore Avenue would operate at Level-of-Service (LOS) A at all times with the added Sikh Center traffic, while traffic from the access driveway would operate at LOS A under normal conditions trip estimates but B under the worst-case scenarios with little vehicle queues.

PHA also conducted a turning-lane warrant evaluation based on American Association of State Highway and Transportation Officials (AASHTO) guidelines and general traffic engineering practice. The evaluation is based on traffic volumes (opposing volume and advancing volume, turning volume) and speed. Results indicated that the intersection at the driveway would not reach the minimum volume guidelines for installing either a left or right turning lane. The analysis is consistent with the traffic LOS analysis results, which indicated little delays and vehicle queues at all of the approaches. In fact, as stated in item a), above, most members reside in Dublin, Pleasanton, San Ramon, Danville, Hayward and Livermore and would approach the site by making right-turns from N. Livermore Avenue. Most center members are not expected to make left-turns from N. Livermore Avenue to access the site.

Festival parking would be on-site, along the driveway and in already disturbed areas near the proposed parking lot. The County would include conditions of approval in the CUP that will ensure that traffic is managed within and on the site, and will not result in any roadway hazards.

e. Result in inadequate emergency access?

Less than Significant. The site access driveway is an existing driveway located at the northern edge of the property line and would provide adequate site access. While it is ideal to have another driveway for emergency access, another driveway to the site would be too close to the I-580 off-ramp, and would create a hazard as it would not meet minimum sight distance requirements. See also response to Item d), above. The entry driveway would be required to be engineered to support County fire apparatus.

f. Conflict with adopted policies, plans, or programs regarding public transit, bicycle or pedestrian facilities or otherwise decrease the performance or safety of such facilities?

Less than Significant. See response to Item a, above. The project would not alter public transit or bicycle and pedestrian facilities in the area. The project would not have an impact on public transit as there is no bus service on North Livermore near the project site. There are bike lanes in both directions on North Livermore Avenue near the project site and the proposed project would have a small impact on bicyclists because that they would have to cross the driveway access in the northbound direction, and there would be periodic increases in traffic to and from that driveway as a result of the project. However the paved driveway apron would reduce the potential for dirt and mud that may be carried down the driveway to North Livermore, thereby slightly improving conditions for cyclists. Overall, the project would not substantially decrease the performance or safety of public transit, bicycle, or pedestrian facilities, or conflict with adopted policies, plans, or programs regarding public transit, bicycle, and pedestrian facilities.

3.17 Utilities and Service Systems

Would the project:		Significant Impact	Less Than Significant Impact With Mitigation	Less Than Significant Impact	No Impact
a.	Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b.	Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c.	Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d.	Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e.	Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f.	Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g.	Comply with federal, state, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Environmental Setting

Electric and Gas

Pacific Gas and Electric Co. (PG&E) supplies electricity to the project site and the two existing homes on site. It is sufficient to meet the needs of the facility. An onsite propane gas tank serves the heating requirements for the facility.

Wastewater Treatment

Wastewater from the existing houses is treated by the existing septic system, which served the main house with four bedrooms and the mobile home with three bedrooms. A septic tank is currently being used to collect and treat wastewater and the effluent is discharged to an adjacent leachfield where it percolates into the underlying soils.

Wastewater treatment is under the jurisdiction of Alameda County Flood Control and Water Conservation District, Zone 7. In the 1980's, Zone 7 adopted Wastewater Management Policies to minimize the potential for impacts to groundwater from over use and misuse of septic tanks over the "Central Groundwater Basin and its fringe areas." One such policy prohibits the use of OWTS for any new commercial development unless an exception is approved by the Zone 7 Board. The Board has adopted a process and criteria for approval of OWTS for commercial use.

The project site is situated outside of the Livermore Valley Groundwater Basin boundary and not within or near any of the Special OWTS Requirement Areas identified in Zone 7's Nutrient Management Plan (NMP). The project site is also located outside of the City of Livermore's Urban Growth Boundary (UGB), and about 0.4 mile from the closest public sewer main in Livermore Avenue; consequently, a connection to the municipal sewer system is not an option at this time.

Water Supply

Water for the project is currently provided by an onsite well. A well test was conducted in July 2015 and showed a steady production of about 19 gallons per minute (Dejesus Pump and Well, 2015). This equates to about 27,000 gallons/day. Water is used for sanitation and irrigation of landscaping. Water also is used for domestic purposes by onsite residents and visitors for restrooms and general housekeeping. The existing water use on the site is estimated to be approximately 250 gallons/day (about 7,500 gallons per month).

Stormwater Drainage

There are no storm drainage facilities on-site or serving the site along N. Livermore Avenue. Most rainfall on the site infiltrates into the soil.

Solid Waste

Waste Management is the primary waste contractor for recycling and waste services (www.acgov.org). The project site is currently being serviced by Waste Management for solid waste disposal and this service will continue in the future.

Discussion

a. Would the project exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

Less-than-Significant with Mitigation Incorporated. The proposed project would be connected to an improved septic system for sanitary sewer waste. The existing septic system is not adequate to serve the proposed uses, and the upgraded system may include a flow equalization tank and leachfield improvements. The Tri-Valley Sikh Center has requested Zone 7's authorization for a commercial use of an existing onsite wastewater treatment system (OWTS) for a religious meeting and prayer facility.

The total onsite wastewater loading resulting from the part-time use of the religious facility and the continued full-time use of the remaining residence has been estimated to be 380 gallons per day (daily average) by the project proponent's OWTS design consultant. This is about 1.2 rural residential equivalents (RRE), as compared to the 2.0 RRE of loading that existed on the site when it was used as two full-time rural residences.

Zone 7 staff reviewed the application and additional information provided by SJB Consulting Group on behalf of the Tri-Valley Sikh Center using Zone 7's Septic Tank Permit Review Decision Tree (Exhibit C) in accordance with procedures adopted by the Zone 7 Board in 1986. Zone 7 staff concluded that the proposed use conforms to the Zone 7 Wastewater Management Policy (WMP) that permits a maximum wastewater loading of 1 RRE/5 acres when no community sewage system is available. The estimated 380 gpd (1.2 RRE) of wastewater loading for the entire site (9.9 Ac.) results in a prorated loading density of 0.6 RRE/5 Ac, which is less than the allowable maximum wastewater loading of 1 RRE/5 acres established by the Wastewater Management Plan, and supported by the County's OWTS regulations. Staff also concluded that the proposed septic tank use conforms to Zone 7's Resolution 1165, which prohibits the use of septic tanks for new commercial and industrial developments overlying the groundwater basin unless it can be satisfactorily demonstrated that the wastewater loading will be no more than that from "an equivalent rural residential unit." In this case, prorating the total onsite wastewater loading is estimated to be only 0.6 RRE/5 Ac, which is well below the 1 RRE/5 Ac limit.

This impact would be reduced to a less-than-significant level with implementation of Mitigation Measure Util-1, below.

Mitigation Measure UTIL-1: The following requirements shall be met by the project applicant:

2. Alameda County Environmental Health Department shall review and approve the use of the OWTS and provides oversight during its operation and maintenance;
2. No wastewater disposal, other than that specifically approved herewith, shall be allowed without prior approval by the Zone 7 Water Agency; and
3. When a public sewer is extended to within 200 feet, the OWTS shall be abandoned and all building sewers shall be connected to the public sewer.

Significance after Mitigation

Implementation of Mitigation Measure UTIL-1 would ensure that septic system capacity would be adequate to serve the proposed new uses. Therefore, all appropriate wastewater treatment requirements would be met for the proposed project and this impact would be reduced to a less-than-significant level.

b. Would the project require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

Less-than-Significant with Mitigation Incorporated. As described in a) above, the proposed project would be connected to an improved septic system for sanitary sewer waste, as required in Mitigation Measure UTIL-1. Water would be served from an onsite well. There would be no impact on public or community water or wastewater treatment facilities.

c. Would the project require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

No Impact. Currently, most stormwater runoff percolates into the ground onsite, with limited runoff to the street. No changes to runoff or storm drainage are proposed and no construction of new stormwater drainage system is necessary. There would be no impact to the environment.

d. Would the project have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?

Less than Significant. The proposed project has an onsite well which provides the required water for use. The well meets the needs for the proposed project and no improvements to the existing facilities are necessary. The site currently uses on average of 7500 gallons of water per month. The project's estimated monthly usage of 10,400 gallons per month is well within the production capacity of the onsite well (as confirmed by the July 2015 well test).

As mentioned above in a), the proposed project would primarily use water for domestic uses. The proposed project would provide classroom / office space, worship space, and a community

kitchen for a maximum of 100 persons, and living quarters for the priest and his family. On a daily basis the site would be used permanently by 2-3 persons and about 5-10 visitors. However, on the weekends, the site may be used by up to 100 persons for 5-6 hours per day. The proposed project would generate a demand for a maximum of approximately 125,000 gallons per year of water (considering 35 gallons of use by two persons for 7 days a week and 10 gallons per day of use by 100 persons for 100 days per year). The project requirements would increase from approximately 90,000 gallons per year to 125,000 gallons per year. The well is capable of providing the required amounts of water, and no modifications to existing facilities are necessary. (TVSC, personal communication) This increase in the use of water would result in a less-than-significant impact.

e. Would the project result in a determination by the wastewater treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

No Impact. The project would not public require wastewater treatment services because wastewater would be collected onsite and disposed of in an improved sanitary septic system. Therefore, no impact would occur related to offsite wastewater treatment services.

No increase in water use is anticipated from the Project. No new or expanded supplies would be needed. Therefore the project would have no impact.

f. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?

Less-than-Significant Impact. Project construction activities would generate minimal solid waste related to excess construction materials and material removed during site clearing. The quantity of solid waste is not anticipated to affect the capacity of local landfills, and disposal of all waste would comply with applicable regulations (i.e., Green Building Ordinance). As a result, landfill and solid waste impacts would be less than significant.

g. Comply with federal, state, and local statutes and regulations related to solid waste?

Less-than-Significant Impact. Refer to f) above.

3.18 Mandatory Findings of Significance

Checklist Items: Would the project		Significant Impact	Less Than Significant Impact With Mitigation	Less Than Significant Impact	No Impact
a.	Does the project have the potential to (1) degrade the quality of the environment, (2) substantially reduce the habitat of a fish or wildlife species, (3) cause a fish or wildlife population to drop below self-sustaining levels, (4) threaten to eliminate a plant or animal community, (5) reduce the number or restrict the range of a rare or endangered plant or animal, or (6) eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b.	Does the project have impacts that are individually limited, but cumulatively considerable? "Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c.	Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion

a. Does the project have the potential to (1) degrade the quality of the environment, (2) substantially reduce the habitat of a fish or wildlife species, (3) cause a fish or wildlife population to drop below self-sustaining levels, (4) threaten to eliminate a plant or animal community, (5) reduce the number or restrict the range of a rare or endangered plant or

animal, or (6) eliminate important examples of the major periods of California history or prehistory?

Less-than-Significant with Mitigation Incorporated. As discussed in the Cultural Resources, and Biological Resources sections of this Initial Study, the proposed project would result in potentially significant impacts as a result of proposed project that would have the potential to degrade the quality of the environment. The adoption and implementation of mitigation measures described in this Initial Study would reduce the impacts of the proposed project to less-than-significant levels.

b. Does the project have impacts that are individually limited, but cumulatively considerable? “Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.

Less than Significant. Cumulative environmental effects are multiple individual effects that, when considered together, would be considerable or compound or increase other environmental impacts. Individual effects may result from a single project or a number of separate projects and may occur at the same place and point in time or at different locations and over extended periods of time.

As described in this IS, reuse of the existing onsite house for religious and social gatherings and construction of a gravel parking area would not contribute in a cumulatively considerable manner to any cumulatively significant impacts. Furthermore, there are no substantial development projects on N. Livermore Avenue known to be proposed that would result in cumulative impacts.

c. Does the project have environmental effects that would cause substantial adverse effects on human beings, either directly or indirectly?

Less than Significant. As described in the Air Quality, Noise, and Hazards discussions in this IS, the project would not have the potential to adversely affect human beings, either directly or indirectly.

4. List of Preparers

This Initial Study was prepared by the Alameda County Planning Department. The following staff and consultants contributed to the preparation of this Initial Study:

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6. Appendices

Appendix A: CNDDB Map

Figure 1: Local CNDDDB Map
 TRI-VALLEY SIKH CENTER



Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

● Special-Status Species (CNDDDB)

0 0.25 0.5 1 Miles

Appendix B: Traffic Report

Tri- Valley Sikh Center Traffic Study

Alameda County

**November
2015**

PHA Transportation Consultants
2711 Stuart Street Berkeley CA 94705
www.pangho.com

Setting

PHA Transportation Consultants (PHA) has completed a study to evaluate the potential traffic impact of a proposed Tri-Valley Sikh Center development at N. Livermore Avenue just north of I-580 in an unincorporated part of Alameda County. The site consists of 9.85 acres of land and is currently occupied by a 6,000 square foot residence at the northeast corner of the site. The remainder of the site is vacant. The study specifically evaluated site traffic generation, distribution, operations, access, parking, and its potential impact on N. Livermore Avenue. Figure 1 shows the location of the project site. Figure 2, provided by the project architect, shows the project site plan.

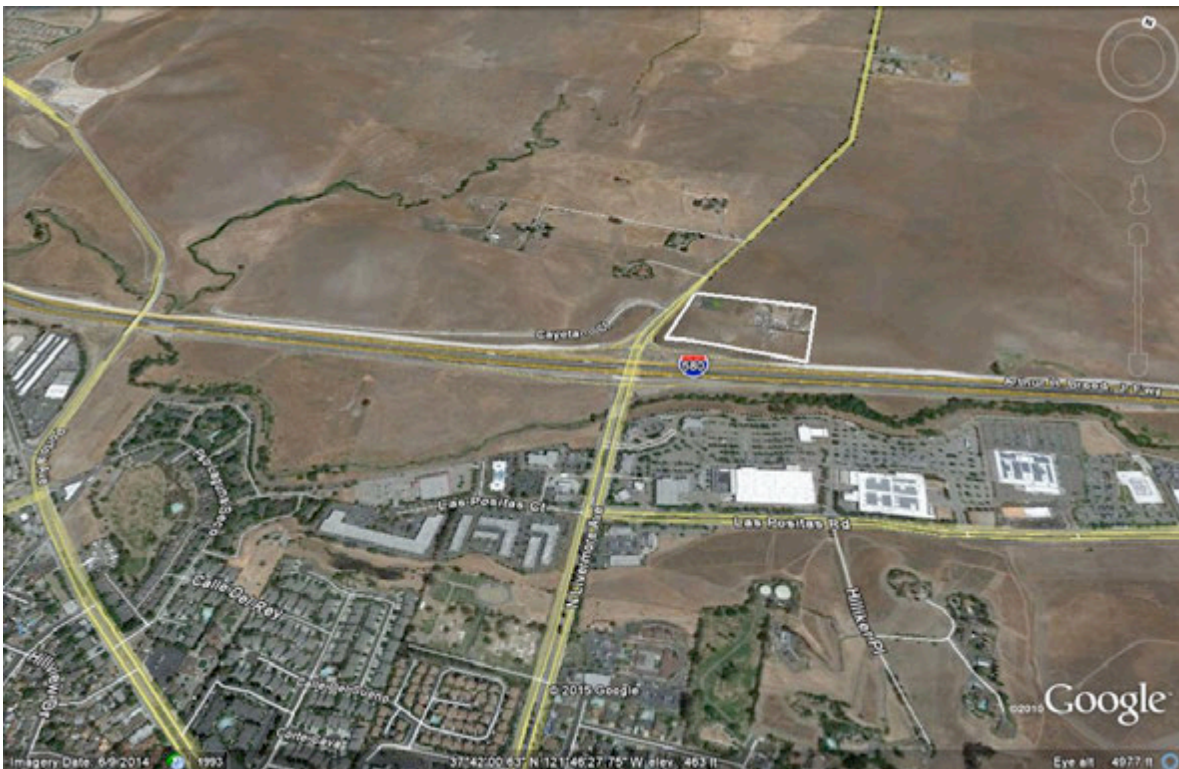


Figure 1. Project Site Location

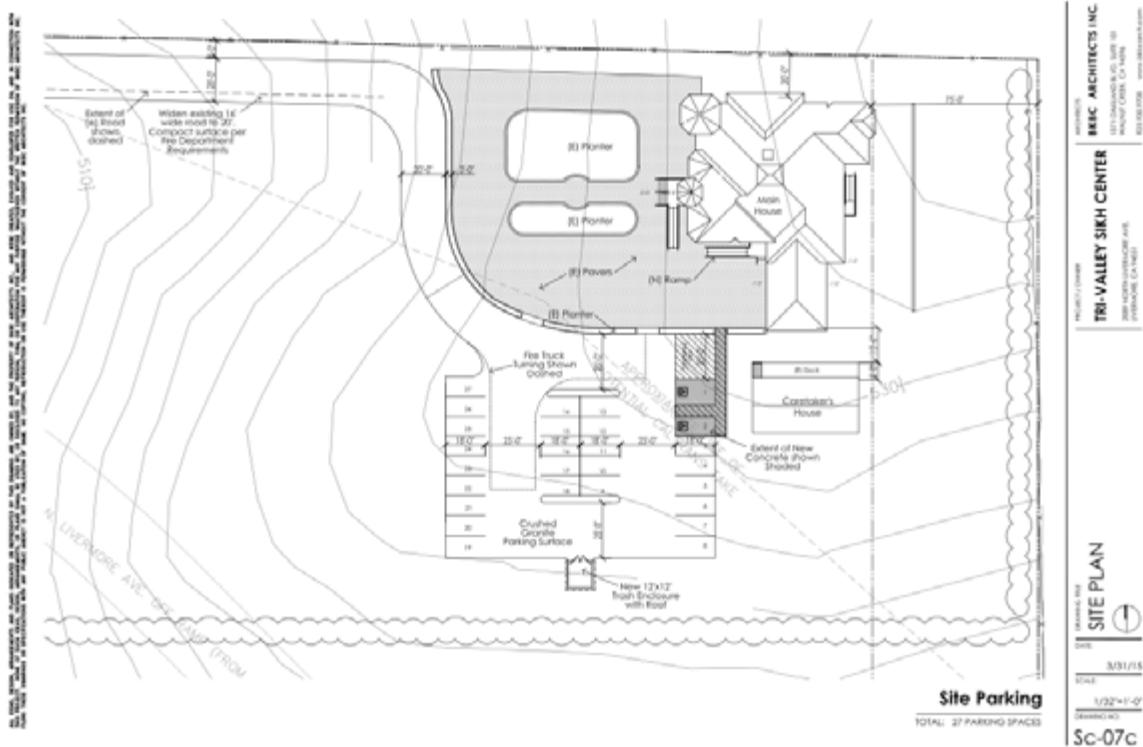


Figure 2. Project Site Plan

Project Description

The project proposes to convert the current residence to a religious center to facilitate religious and education services while the accessory unit will be used for a caretaker quarter. Access to the center would be via an existing driveway off N. Livermore Avenue. As proposed, the site will provide 27 parking spaces. The center currently has about 80 members and is currently meeting at the City of Dublin City Hall. Most of the members reside in Dublin, Pleasanton, San Ramon, Hayward, and Livermore. According to the project proponent, attendance at evening services is between 10 and 20 adults. Attendance at weekend activities ranged between 40 and 70. During festival celebrations, attendance would likely reach 125 adults and 50 children, but not more than 200 total persons (65% adults and 35% children). Table 1 shows the anticipated activities and attendees for the proposed center.

Activities	Days	Hours	Anticipated Attendees	
			Adults	Children
Evening religious services	Wednesdays	6:30-8:30 pm	10-20	5-10
Sunday religious service	Sundays	10:00-2:30 pm	60-70	30-40
Schools	Saturday	11:00-12:30 pm	40-50	30-40

Community meals	Sundays	1:30-2:30 pm	60-70	20-30
Community uses (occasional)	Sundays	10:00-2:30 pm	60-70	20-30
Funeral services (occasional)	Saturdays	3-5 pm	60-70	20-30
Birthday parties (occasional)	Sundays	10:00-2:30 pm	60-70	20-30
Festivals (4 times a year)	Sundays	10:00-2:30 pm	100-125 ^a	40-50
Source:TVSC				
^a When festival celebrations are held, attendees may reach between 175 to 200 (65% adult, 35% children).				

Current Study Area Conditions and Site Access

The proposed project site is on the east side of N. Livermore Avenue just north of Interstate I-580. Access to and from the site is via N. Livermore Avenue and I-580. I-580 is a regional freeway providing east-west access between Richmond and Marin County in the west and Livermore and Tracy in the east. N. Livermore Avenue connects central Livermore in the south and the unincorporated area of Alameda County to the north. The segment north of I-580 is a two-lane rural road providing access to several large farm houses. The area in the vicinity of the proposed project site is mostly agricultural or undeveloped. The posted speed limit on N. Livermore Avenue is 50 mph. N. Livermore Avenue is divided by a raised median just south of the project site driveway.

According to traffic volume counts collected in mid-October 2015, N. Livermore carries up to 4,800 vehicles per day (vpd) in both directions during weekdays and between 2,200 and 3,700 vpd during weekends. A close review of the traffic volume indicated that traffic peaks during the morning commute hours (5-10 am) in the southbound direction and afternoon commute hours (3-5 pm) in the northbound direction. There is little traffic between and after the commute peaks.

While this two-lane segment of N. Livermore Avenue has the ability to carry a daily volume of 15,000 vehicles per day. The current traffic volume is considered high since the area is mostly agricultural and undeveloped with only a handful of farmhouses and rural residential uses. According to neighbors in the area, and confirmed by County staff, most of the traffic is cut-thru traffic traveling between Vasco Road and I-580.

At one time, Caltrans had plans to widen the I-580 on-off ramps at N. Livermore Avenue and would take parts of the project site for that purpose. However, Caltrans is no longer pursuing the plan. Table 2 summarizes daily traffic volumes on N. Livermore Avenue over a seven-day period at a point just north of the project site. Figure 3 shows the traffic peaking characteristics for a typical weekday on N. Livermore Avenue.

Table 2. Daily (24-hour) Traffic Volume Analysis – N. Livermore Ave.			
	Volumes Both Directions	Average Speed Mph (recorded)	Speed Limit mph
Monday	4736	50.0	50
Tuesday	4876	47.9	50
Wednesday	4856	48.5	50
Thursday	4621	50.5	50
Friday	3393	52.1	50
Saturday	2231	50.0	50
Sunday	3786	47.9	50
PHA Transportation Consultants - traffic counts conducted in mid October 2015.			

According to data obtained from the Statewide Integrated Traffic Record System (SWITR), there were 6 reported traffic collisions along N. Livermore Avenue between January 1, 2012, and December 31, 2014. All of the reported collisions occurred to the north of the project site near Hartman and Hartford Avenues. None of them were fatal. Collision reports indicated these collisions were mostly due to unsafe speeds and improper turnings.

Discussion

Site Traffic Generation

PHA conducted a trip generation analysis for the proposed center based on the anticipated activities and the number of attendees. In view of the above activity schedules, the center is expected to generate about 20 trips (10 inbound and 10 outbound) on Wednesday evenings, about 70 trips (35 inbound and 35 outbound) on Saturdays and Sundays during the day. According to the project proponent, community meals, birthday parties and other activities would be held concurrently during Saturday and Sunday service, attended by the same member group and would not generate additional traffic. The center will hold festivals four times a year and may have up to 125 adult attendees. All festivals will be held on Sundays concurrent with regularly scheduled Sunday activities. Table 3 summarizes project trip generation estimates.

Table 3. Project Trip Generation Analysis					
Activities	Estimated Attendees	Estimated Trips		Worst -case Trips	
		In	Out	In	Out
Wednesday Evening	10-20 adults, 5-10 children	10	10	20	20
Saturday	60-70 adults, 30-40 children	35	35	70	70
Sunday	60-70 adults, 30-40 children	35	35	70	70
Festivals (Sundays 4 times a year)	100-125 adults, 40-50 children	63	63	125	125
Note: Wednesday activity is mainly religious service. Sunday activities include religious service, schools, community meals, and occasional birthday parties. Saturday activities are mostly for community uses and occasional funerals services. Estimated trips assume 2 adults per vehicle with or without children. Worst-case trips assume each adult member drives to the center.					

As discussed previously, most members are residents of Dublin, Pleasanton, San Ramon, Hayward and Livermore and will be traveling to and from the site via N. Livermore Avenue and Interstate I-580.

Traffic Impact

Based on the meeting schedules and activities as discussed above, the proposed Tri-Valley Sikh Center could add between 20 trips (assuming two adult members per vehicle) and 40 trips (assuming one adult member to each vehicle) to N. Livermore Avenue on Wednesday evening. Based on the same assumptions, the center could create between 70 and 140 trips each Saturday and Sunday. When festivals are held, four times a year on weekends, the project could create between 125 and 250 trips. These trip estimates include both inbound and outbound trips. The added trips would not affect peak hour traffic operation on N. Livermore Avenue and the Freeway I-580 interchange at N. Livermore Avenue as all center activities occur either on weekends or after normal commute hours. Table 4 summarizes project added traffic on N. Livermore Avenue.

Day	Current Vol. N. Livermore Ave.	Project Added Vol.		% Change	
		Estimated	Worst-case	Estimated	Worst-case
Mon	4736	0	0	0%	0%
Tue	4876	0	0	0%	0%
Wed	4856	20	40	0%	1%
Thu	4621	0	0	0%	0%
Fri	3393	0	0	0%	0%
Sat	2231	70	140	3%	6%
Sun	3786	125	250	3%	7%

PHA Transportation Consultants, October 2015

Driveway Operation Analysis

PHA conducted traffic operation analyzes for the site access driveway to evaluate if the driveway can handle the added vehicle turning movements. The analysis was conducted based on the same two sets of assumptions, i.e. two adult members per vehicle with or without kids, and the worst-case of one adult member per vehicle with or without kids. Results indicated that traffic on N. Livermore Avenue will operate at Level-of-Service (LOS) A at all times with the added Sikh Center traffic, while traffic from the access driveway will operate at LOS A under normal trip estimates but B under the worst-case scenarios with little vehicle queues. Table 5 summarizes driveway traffic analysis results. Figure 4 shows vehicle turning movements at the access driveway.

Traffic Movements	Wednesday		Saturday				Sunday					
	Normal-case		Worst-case		Normal		Worst-case		Normal		Worst-case	
	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
NB Thru-traffic	A	0.0	A	0.0	A	0.0	A	0.0	A	0.0	A	0.0
NB Right-turn	A	0.0	A	0.0	A	0.0	A	0.0	A	0.0	A	0.0
SB Thru-traffic	A	0.0	A	0.0	A	0.0	A	0.0	A	0.0	A	0.0
SB Left-turn	A	0.0	A	0.0	A	0.0	A	0.0	A	0.0	A	0.0
WB Left-turn	A	9.9	B	10.1	A	9.7	B	10.1	A	9.9	B	10.7
WB Right-turn	A	9.9	B	10.1	A	9.7	B	10.1	A	9.9	B	10.7

Normal-case: 2 adults (husband and wife ride together) per vehicle. Worst-case: one adult per vehicle.
 NB and SB direction indicates traffic from N. Livermore Avenue. WB direction represents traffic from the Sikh Center driveway. Analyses were conducted using 2000 HCM procedures for non- signalized intersections.
 LOS A = 0.0- 10.0 seconds delays; LOS B = 10.1- 15.0 seconds delays; LOS C = 15.1.0- 25.00 seconds delays
 LOS D = 25.1- 35.0 seconds delays; LOS E = 35.0- 50.0 seconds delays; LOS F = > 50.0 seconds delays

Figure 4. Driveway Traffic Volumes during Scheduled Activities

Turning Lane Analysis

PHA conducted a turning lane warrant evaluation based on American Association of State Highway and Transportation Officials (AASHTO) guidelines and general traffic engineering practice. The evaluation is based on traffic volumes (opposing volume and advancing volume, turning volume) and speed.

Results indicated that the intersection at the driveway would not meet the minimum volume guidelines for installing either a left or right turning lane. The analysis is consistent with the aforementioned traffic LOS analysis results, which indicated little delays and vehicle queues at all of the approaches. In fact, as stated previously, all members reside in Dublin, Pleasanton, San Ramon, Danville, Hayward and Livermore and would approach the site by making right turns from N. Livermore Avenue. Center members are not expected to make left-turns from N. Livermore Avenue to access the site. Figure 5 and 6 show results of turning lane warrant analyzes. Traffic volumes (advancing, turning, and opposing) plotted to the left of the curve indicates turn lanes are not warranted. In the case of Figure 6, traffic volumes are too low and would be plotted outside of the chart to the left. The turning lane analysis was based on worst-case traffic assumptions.

While no turning lanes or additional traffic control are needed. PHA recommends installing a stop sign at the driveway exit for safety reason even though vehicles exiting driveways are required to stop by rule before entering a major street.

Pavement Marking

There is a striped median on N. Livermore Avenue in front of the site access driveway. According to California Vehicle Code (CVC), motorists are not permitted to turn or drive over the striped median. As such, the project proponent needs to request the County to remove or modify the current striped median to allow left-turn traffic turning out from the site. There are also bike lanes on both sides of N. Livermore Avenue. The solid white bike lane line in front of the site access driveway also needs to be modified to provide a dashed line to allow vehicle access.

Sight Distance Analysis

PHA evaluated the sight distance for the access driveway to the south due to the high vehicle speeds and the curve from the WB I-580 off-ramp. Sight Distance is the length of roadway ahead that is visible to the driver. The available sight distance on a roadway should be sufficiently long to enable a vehicle traveling at or near the design speed to stop before reaching a stationary object in its path. Although greater lengths of visible roadway are desirable, the sight distance at every point along a roadway should be at least that needed for a below-average driver or vehicle to stop.

According to AASHTO guidelines, the stopping sight distance should be 495 feet long for streets with a design speed of 55 mph. Based on field review and measurements, the current site access driveway

has about 510 feet long stopping sight distance in the south direction and is adequate. There are no curves in the north direction and sight distance is not a problem.

Parking and Internal Circulation

Access to the site currently is provided by an unpaved driveway measuring about 15 feet wide. According to the site plan, the driveway will be widened to 20 feet with crushed gravel surface. This would satisfy County Fire Department requirements. While County staff considers crushed gravel driveway acceptable, PHA recommends paving a 50-foot section of the driveway apron. This would prevent loose gravels being dragged onto the roadway, which could have a negative impact on bicyclists.

The project site plan shows 27 on-site parking spaces including two handicapped spaces. This exceeds the county parking requirement of 22 spaces. The drive aisle as shown is 25 feet wide and should accommodate two-way traffic movements, parking maneuvers, and internal circulation. However, based on the assumption used in the previous trip generation analysis with two adult members per vehicle, the on-site parking may not be adequate to accommodate the estimated 70 adult members and would also be short during festivals when visitors reach above 100. While the project proponent indicated that overflow parking can be accommodated on the site over the paver area. PHA recommends preparing a parking plan (layout) for center staff to direct overflow parking needs. The parking plan should also include strategies for carpooling and shuttle services to reduce parking demand.

Recommendations

Based on the above analysis, the proposed Tri-Valley Sikh Center is not expected to create significant traffic impacts on N. Livermore Avenue or the Interstate I-580 interchange at N. Livermore Avenue because all center scheduled activities would occur after normal commute hours. However, PHA recommends the following measures to enhance and improve the overall project implementation and operation:

1. Request County permission to remove or modify the striped median on N Livermore Avenue in front of the site access driveway to permit left-turn traffic movement.
2. Modify the solid white bike lane in front of the access driveway as a dashed line to provide vehicle access.
3. Widen the access driveway to 20 feet and the turning radius at the entrance exit to provide two-way vehicle access and garbage truck and fire engine access. Pave the apron section at the driveway (about 50-foot in length) to prevent loose gravel and debris being dragged onto N. Livermore Avenue.
4. Create and develop a parking layout drawing (map) for center staff to direct overflow parking on the paver section of the site.
5. Develop plans and strategies for parking during festival days when visitors may reach over 100, especially when 200 attendees are expected. These could include carpooling, shuttle service and any other viable parking strategies that will ensure all overflow parking needs are accommodated on the site.

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