

CITY OF LIVERMORE
NORTH LIVERMORE AVENUE
CHICK-FIL-A PROJECT
DRAFT INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

Prepared for:

CITY OF LIVERMORE
1052 S. LIVERMORE AVENUE
LIVERMORE, CA 94550

Prepared by:

Michael Baker

I N T E R N A T I O N A L

2729 PROSPECT PARK DRIVE, SUITE 220
RANCHO CORDOVA, CA 95670

JUNE 2020

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1.1 INTRODUCTION AND REGULATORY GUIDANCE

This document contains an initial study, with supporting environmental studies, which concludes that a mitigated negative declaration is the appropriate California Environmental Quality Act (CEQA) document for the North Livermore Avenue Chick-fil-A Restaurant Project (proposed project). This Mitigated Negative Declaration has been prepared in accordance with Public Resources Code Section 21000 et seq., and the CEQA Guidelines, California Code of Regulations Section 15000 et seq.

An initial study is conducted by a lead agency to determine whether a project may have a significant effect on the environment. In accordance with CEQA Guidelines Section 15063, an environmental impact report (EIR) must be prepared if an initial study indicates that the proposed project under review may have a potentially significant impact on the environment that cannot be initially avoided or mitigated to a level that is less than significant. A negative declaration may be prepared if the lead agency also prepares a written statement describing the reasons why the proposed project would not have a significant effect on the environment and, therefore, why it does not require the preparation of an EIR (CEQA Guidelines Section 15371). According to CEQA Guidelines Section 15070, a negative declaration shall be prepared for a project subject to CEQA when either:

- a) The initial study shows there is no substantial evidence, in light of the whole record before the agency, that the proposed project may have a significant effect on the environment, or
- b) The initial study identifies potentially significant effects, but:
 - (1) Revisions in the project plans or proposals made by or agreed to by the applicant before the proposed negative declaration is released for public review would avoid the effects or mitigate the effects to a point where clearly no significant effects would occur; and
 - (2) There is no substantial evidence, in light of the whole record before the agency, that the proposed project as revised may have a significant effect on the environment.

If revisions are adopted in the proposed project in accordance with CEQA Guidelines Section 15070(b), including the adoption of the mitigation measures included in this document, a mitigated negative declaration can be prepared.

1.2 LEAD AGENCY

The lead agency is the public agency with primary responsibility over a proposed project. Where two or more public agencies will be involved with a project, CEQA Guidelines Section 15051 provides criteria for identifying the lead agency. In accordance with CEQA Guidelines Section 15051(b)(1), "the lead agency will normally be the agency with general governmental powers, such as a city or county, rather than an agency with a single or limited purpose." Based on the criterion above, the City of Livermore (City) is the lead agency for the proposed North Livermore Avenue Chick-fil-A Project.

1.0 INTRODUCTION

1.3 PURPOSE AND DOCUMENT ORGANIZATION

The purpose of this Initial Study is to evaluate the potential environmental impacts of the proposed project. This document is divided into the following sections:

- 1.0 Introduction** – This section provides an introduction and describes the purpose and organization of the document.
- 2.0 Project Information** – This section provides general information regarding the project, including the project title, lead agency and address, contact person, brief description of the project location, General Plan land use designation and zoning district, identification of surrounding land uses, and identification of other public agencies whose review, approval, and/or permits may be required. Also listed in this section is a checklist of the environmental factors that are potentially affected by the project.
- 3.0 Project Description** – This section describes the proposed project in detail.
- 4.0 Environmental Checklist** – This section describes the environmental setting and overview for each of the environmental subject areas, and evaluates a range of impacts classified as “no impact,” “less than significant impact,” “less than significant impact with mitigation incorporated,” and “potentially significant impact” in response to the environmental checklist.

1.4 EVALUATION OF ENVIRONMENTAL IMPACTS

Section 4.0, Environmental Checklist, is the analysis portion of this Initial Study. The section evaluates the potential environmental impacts of the project. Section 4.0 includes 21 environmental issue subsections, including CEQA Mandatory Findings of Significance. The environmental issue subsections, numbered 1 through 21, consist of the following:

- | | |
|---------------------------------------|--|
| 1. Aesthetics | 12. Mineral Resources |
| 2. Agriculture and Forestry Resources | 13. Noise |
| 3. Air Quality | 14. Population and Housing |
| 4. Biological Resources | 15. Public Services |
| 5. Cultural Resources | 16. Recreation |
| 6. Energy | 17. Transportation |
| 7. Geology and Soils | 18. Tribal Cultural Resources |
| 8. Greenhouse Gas Emissions | 19. Utilities and Service Systems |
| 9. Hazards and Hazardous Materials | 20. Wildfire |
| 10. Hydrology and Water Quality | 21. Mandatory Findings of Significance |
| 11. Land Use and Planning | |

Each environmental issue subsection is organized in the following manner:

The **Setting** summarizes the existing conditions at the regional, subregional, and local levels, as appropriate, and identifies applicable plans and technical information for the particular issue area.

The **Discussion of Impacts** provides a detailed discussion of each environmental issue checklist question. The level of significance for each topic is determined by considering the predicted magnitude of the impact. Four levels of impact significance are evaluated in this Initial Study:

No Impact: No project-related impact on the environment would occur with project development.

Less Than Significant Impact: The impact would not result in a substantial adverse change in the environment. This impact level does not require mitigation measures.

Less Than Significant Impact With Mitigation Incorporated: An impact that may have a “substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project” (CEQA Guidelines Section 15382). However, the incorporation of mitigation measures that are specified after analysis would reduce the project-related impact to a less than significant level.

Potentially Significant Impact: An impact that is “potentially significant” but for which mitigation measures cannot be immediately suggested or the effectiveness of potential mitigation measures cannot be determined with certainty, because more in-depth analysis of the issue and potential impact is needed. In such cases, an EIR is required.

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2.0 PROJECT INFORMATION

- 1. Project title:** North Livermore Avenue Chick-fil-A Restaurant Project
- 2. Lead agency name and address:** City of Livermore
1052 S. Livermore Avenue
Livermore, CA 94550
- 3. Contact person and phone number:** Andy Ross, Associate Planner
Community Development Department
City of Livermore
(925) 960-4475
- 4. Project location:** 1754 North Livermore Avenue (Assessor's Parcel Numbers [APN] 99-100-3-5, 99-100-4-4, and 99-100-51-1)
- 5. Project sponsor's name and address:** Indrajit Obeysekere, Vice President, Client Services
Meridian
2420 Camino Ramon, Suite 215
San Ramon, CA 94583
- 6. General Plan designation:** City of Livermore: Open Space (OSP); Alameda County: Water Management and Industrial [APNs 99-100-3-5, 99-100-4-4]; City of Livermore: Business and Commercial Park (BCP) [APN 99-100-51-1]
- 7. Zoning:** City of Livermore: not currently zoned; Alameda County: Agriculture [APNs 99-200-3-5, 99-100-4-4]; City of Livermore: Highway Service Commercial (CHS) [APN 99-100-51-1]
- 8. Project description:** The project is the annexation of approximately 23 acres into the city, including the pre-zoning of a 1.5-acre portion of the 23 acres to Highway Service Commercial (CHS) and the remaining 21.5 acres to Open Space-Floodplain (OS-F), and entitlements pending annexation. The 1.5-acre portion would be developed with a 4,737-square-foot Chick-fil-A fast-food drive-through restaurant with parking. A General Plan amendment to change the land use designation for the 1.5-acre restaurant site only from Open Space (OSP) to Business and Commercial Park (BCP) will be required. A Conditional Use Permit, Site Plan Design Review, Tentative Parcel Map, and a Development Agreement will be required. The project also includes dedication of 21.5 acres of open space to the City, construction of a segment of Arroyo Las Positas Class I Trail along the south side of the 1.5-acre restaurant site, an additional trail-related amenity, and northbound

2.0 PROJECT INFORMATION

left-turn lane improvements at the North Livermore Avenue/Arroyo Plaza intersection.

9. Surrounding land uses and setting:

The 23-acre project site is surrounded by Interstate 580 (I-580) and open space to the north, a vacant parcel and an apartment complex to the west, commercial and retail development and a US Postal Service distribution center to the south, and North Livermore Avenue and retail development to the east. Arroyo Las Positas flows westward through the project site and immediately north of the proposed restaurant site. Valley Montessori School is located approximately one-quarter mile southeast of the project site and single-family homes and apartments are approximately 1,500 feet south and west.

10. Other public agencies whose approval may be required (e.g., permits, financing approval, or participation agreement):

- The Alameda County Local Agency Formation Commission (LAFCO) will require approval of the annexation application.
- The City will require an Encroachment Permit for work in City right-of-way.
- The San Francisco Bay Regional Water Quality Control Board (SFBRWQCB) requires that a Construction General Permit be obtained for projects disturbing more than 1 acre of soil, which will apply to the project. Compliance with the permit, including preparation of a Stormwater Pollution Prevention Plan (SWPPP), will be enforced and monitored by the City. The project will also need to comply with the requirements of the SFBRWQCB Municipal Regional Permit (MRP) Provision C.3, which is implemented by the City through its Municipal Stormwater Permit, pursuant to Chapter 13.45 of the Municipal Code. The MRP addresses both construction and ongoing stormwater management during project operation.
- The Alameda County Airport Land Use Commission will need to review for determination of consistency with the Airport Land Use Compatibility Plan.
- The Zone 7 Water Agency will need to review and approve final design during the building permit review.

11. Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code Section 21080.3? If so, has consultation begun?

The City sent a written request to the Lone Band of Miwok Indians in response to the tribe's request for notification of projects pursuant to AB 52 and applicable sections of the Public Resources Code. The tribe did not respond to the City's request within 30 days of receiving the invitation for consultation from the City.

12. Environmental factors potentially affected:

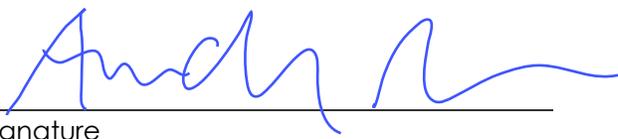
The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a “potentially significant impact” for which mitigation has been identified to reduce impacts to less than significant as indicated by the checklist on the following pages.

<input type="checkbox"/>	Aesthetics	<input type="checkbox"/>	Agriculture and Forestry	<input type="checkbox"/>	Air Quality
<input checked="" type="checkbox"/>	Biological Resources	<input checked="" type="checkbox"/>	Cultural Resources	<input type="checkbox"/>	Energy
<input checked="" type="checkbox"/>	Geology and Soils	<input type="checkbox"/>	Greenhouse Gas Emissions	<input type="checkbox"/>	Hazards and Hazardous Materials
<input type="checkbox"/>	Hydrology and Water Quality	<input type="checkbox"/>	Land Use and Planning	<input type="checkbox"/>	Mineral Resources
<input type="checkbox"/>	Noise	<input type="checkbox"/>	Population and Housing	<input type="checkbox"/>	Public Services
<input type="checkbox"/>	Recreation	<input checked="" type="checkbox"/>	Transportation	<input checked="" type="checkbox"/>	Tribal Cultural Resources
<input type="checkbox"/>	Utilities and Service Systems	<input type="checkbox"/>	Wildfire	<input checked="" type="checkbox"/>	Mandatory Findings of Significance

13. Determination: (To be completed by the lead agency)

On the basis of this initial evaluation:

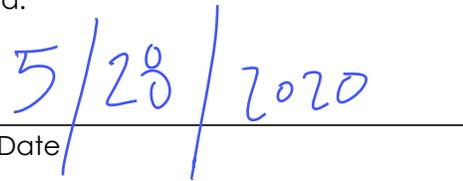
- I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions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



Signature

Andy Ross

Printed Name



Date

City of Livermore

Lead Agency

2.0 PROJECT INFORMATION

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3.1 PROJECT LOCATION

The project site is in Alameda County adjacent to the City of Livermore as shown in **Figure 3.0-1**, with a street address of 1754 North Livermore Avenue. It consists of three parcels: Assessor's Parcel Numbers (APN) 99-100-3-5, 99-100-4-4, and 99-100-51-1. The site is adjacent to the northern portion of the city and is bounded by Interstate 580 (I-580) to the north and North Livermore Avenue to the east as shown in **Figure 3.0-2**. The project site is located approximately 1.2 miles north of downtown Livermore.

3.2 PROJECT SITE DESCRIPTION

The northern part of the 23-acre site is a large parcel north of Arroyo Las Positas, which runs through the site. The northern parcel contains open grassland and is used for agricultural grazing. South of the arroyo, where the proposed restaurant site is situated, there are three small, vacant parcels, including a vacant lot that contained a single-family residence until it was demolished in 2001. There is a 20-foot high embankment along the south edge of the arroyo. Photographs in **Figure 3.0-3** show site conditions as viewed from publicly accessible areas along North Livermore Avenue, existing development to the south, and I-580.

Table 3.0-1 summarizes existing General Plan land use and zoning designations for the three parcels comprising the project site.

TABLE 3.0-1
EXISTING GENERAL PLAN LAND USE DESIGNATIONS AND ZONING

Parcel/Use	Current General Plan Designation	Current Zoning	Acreage
99-100-3-5 (open space and part of proposed restaurant site)	City of Livermore: Open Space (OSP) Alameda County: Water Management	City of Livermore: not currently zoned Alameda County: Agriculture	22.4
99-100-4-4 (part of proposed restaurant site)	City of Livermore: Open Space (OSP) Alameda County: Industrial	City of Livermore: not currently zoned Alameda County: Agriculture	0.20
99-100-51-1 (part of proposed restaurant site)	City of Livermore: Business and Commercial Park (BCP)	Livermore: Highway Service Commercial (CHS)	0.02

SURROUNDING LAND USES

Surrounding land uses consist primarily of commercial development to the south and to the east across N. Livermore Ave. To the north across I-580, open space in the County of Alameda is used primarily for agricultural grazing. Undeveloped land bounding the eastern project property line is within the city of Livermore and is zoned for planned development and open space. **Table 3.0-2** describes surrounding land zoning and existing uses for the 23-acre project site.

3.0 PROJECT DESCRIPTION

TABLE 3.0-2
SURROUNDING LAND USE

Direction	General Plan Designation	Zoning	Existing Land Use
South	Commercial (City of Livermore)	CHS	Retail and commercial
East	Planned Unit Development (City of Livermore)	PUD 141	Retail and commercial
West	Planned Development and Open Space (City of Livermore)	PD, OS-F	Vacant/open space
North	Large Parcel Agriculture and Resource Management (County of Alameda)	OSP	Caltrans/I-580 and agriculture (grazing)

Notes: CHS = Highway Service Commercial; PUD = Planned Unit Development; PD = Planned Development; OS-F = Open Space – Flood Plain.

3.3 PROJECT COMPONENTS

The proposed project would annex approximately 23 acres into the City of Livermore, dedicate approximately 21.5 of those acres north of Arroyo Las Positas to the City as open space through an Irrevocable Offer, and develop the remaining approximately 1.5 acres south of Arroyo Las Positas with a freestanding restaurant.

Development would include: a 4,737-square-foot Chick-fil-A restaurant; a single-lane drive-through; an outdoor dining area; a surface parking lot; and a segment of the Arroyo Las Positas Class I Trail along the south side of the site (**Figure 3.0-4**). Site modifications/improvements include landscaping, stormwater collection areas, and a refuse collection enclosure. No physical improvements or changes to the parcel north of Arroyo Las Positas are proposed.

Access to the site will require improvements to the signalized intersection of North Livermore Avenue and Arroyos Plaza. This proposed off-site improvement is shown in **Figure 3.0-5**.

Additional details about project features are provided below.

The restaurant would operate Monday through Saturday, 24 hours per day, 6 days per week. The project will require a Conditional Use Permit to permit a drive-through for the restaurant and to exceed the 35-foot height limit.

RESTAURANT PROJECT DESIGN

The approximately 4,740-square-foot restaurant building would be designed with various design elements for visual interest such as varying wall planes, stone veneer on corner towers that are slightly higher than the main building, various finishes, and colors to create architectural interest. The building exterior would be painted with neutral colors (gray, taupe, and ivory). Fabric awnings in a dark neutral tone would be installed over non-reflective windows, as illustrated in **Figure 3.0-6**. The building would have a maximum height of approximately 36.7 feet at its tallest point (**Figure 3.0-7**). Because of its location within the I-580 scenic corridor and the North Livermore Avenue scenic route, prior to the Site Plan Design Review entitlement approval, the City will review the project for consistency with the City's Design Standards and Guidelines regarding site planning, architecture, and landscape architecture.

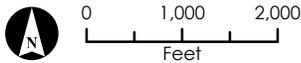


Figure 3.0-1
Regional Vicinity

3.0 PROJECT DESCRIPTION

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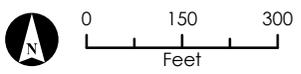


Figure 3.0-2
Project Location

3.0 PROJECT DESCRIPTION

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View of Proposed Restaurant Site to the Southwest



View across Project Site to the Northwest



View of Arroyo Las Positas to the West

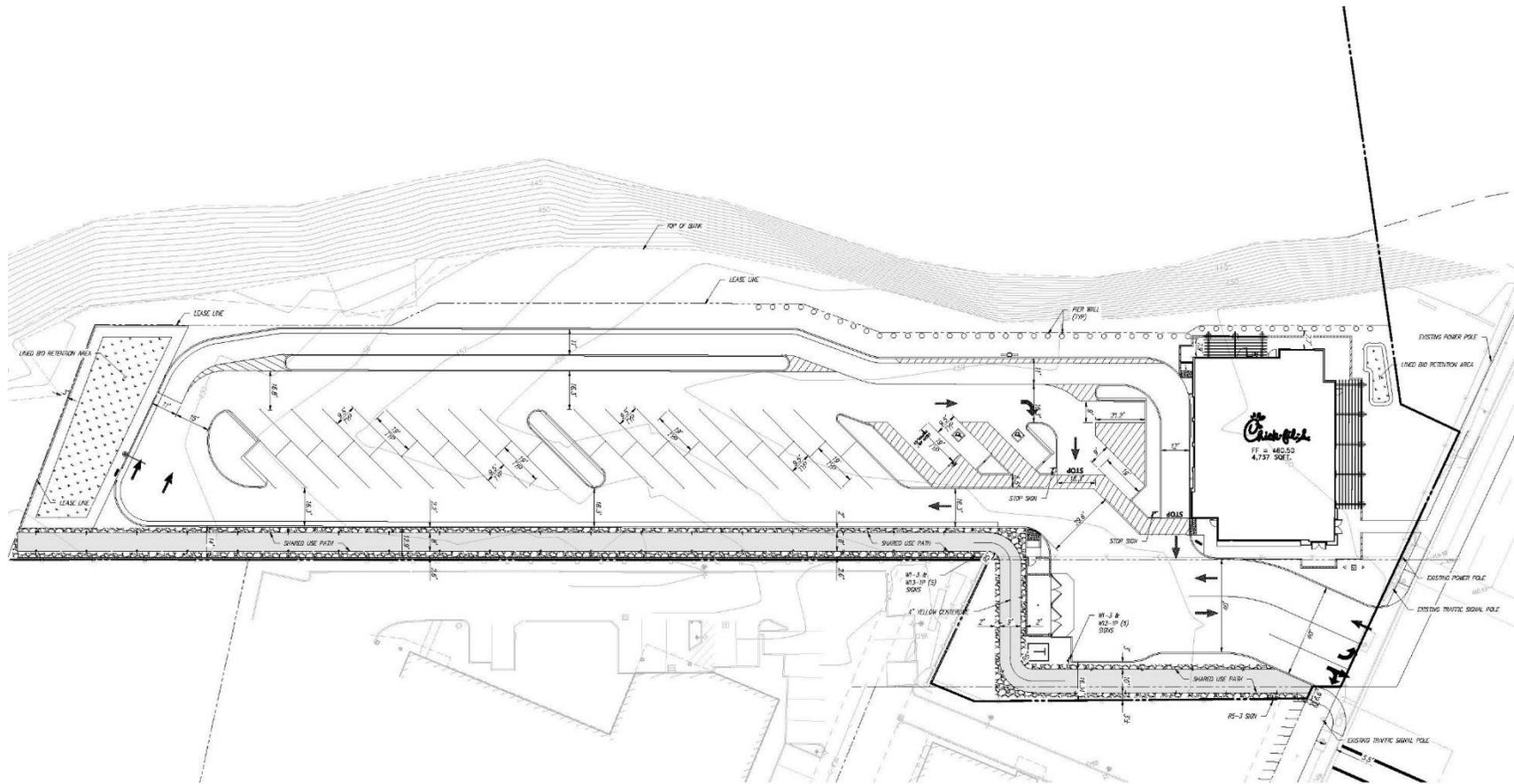
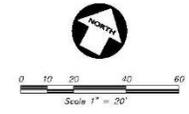


View of Proposed Restaurant Site from I-580

FIGURE 3.0-3
Project Site Conditions

3.0 PROJECT DESCRIPTION

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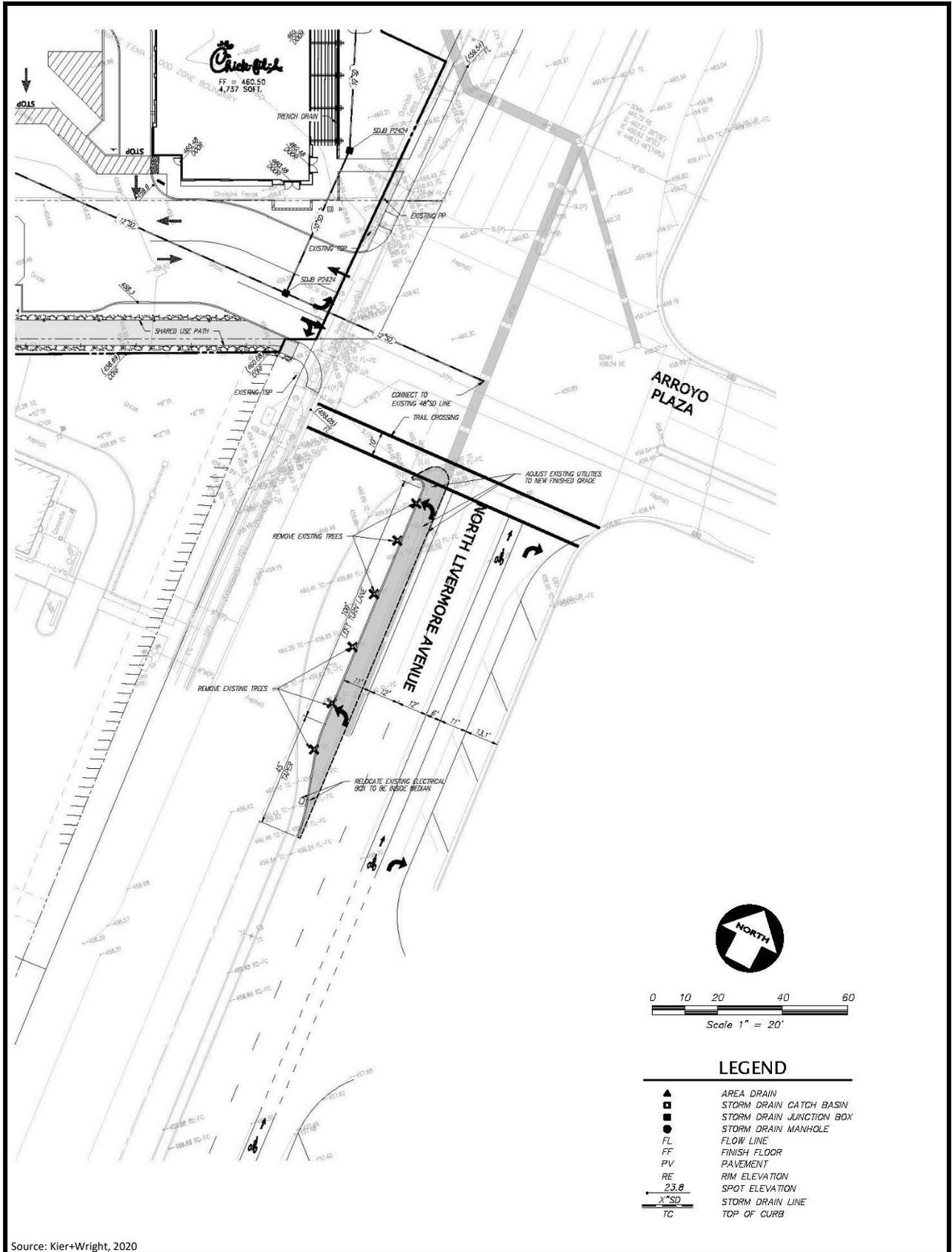


Source: Kier+Wright, 2020

FIGURE 3.0-4
Site Plan

3.0 PROJECT DESCRIPTION

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Source: Kier+Wright, 2020

FIGURE 3.0-5
Off-Site Roadway Improvement

3.0 PROJECT DESCRIPTION

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NORTH ELEVATION



EAST ELEVATION



SOUTH ELEVATION



WEST ELEVATION

Source: crho Architects 2017

FIGURE 3.0-6
Architectural Features

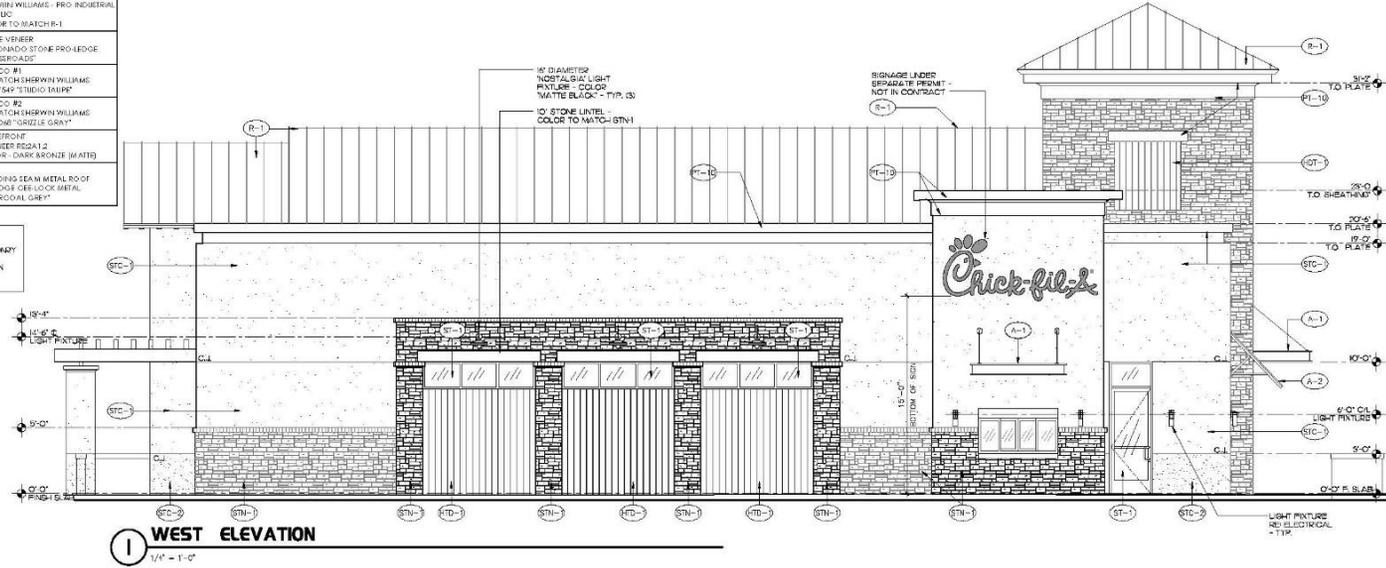
Michael Baker
INTERNATIONAL

3.0 PROJECT DESCRIPTION

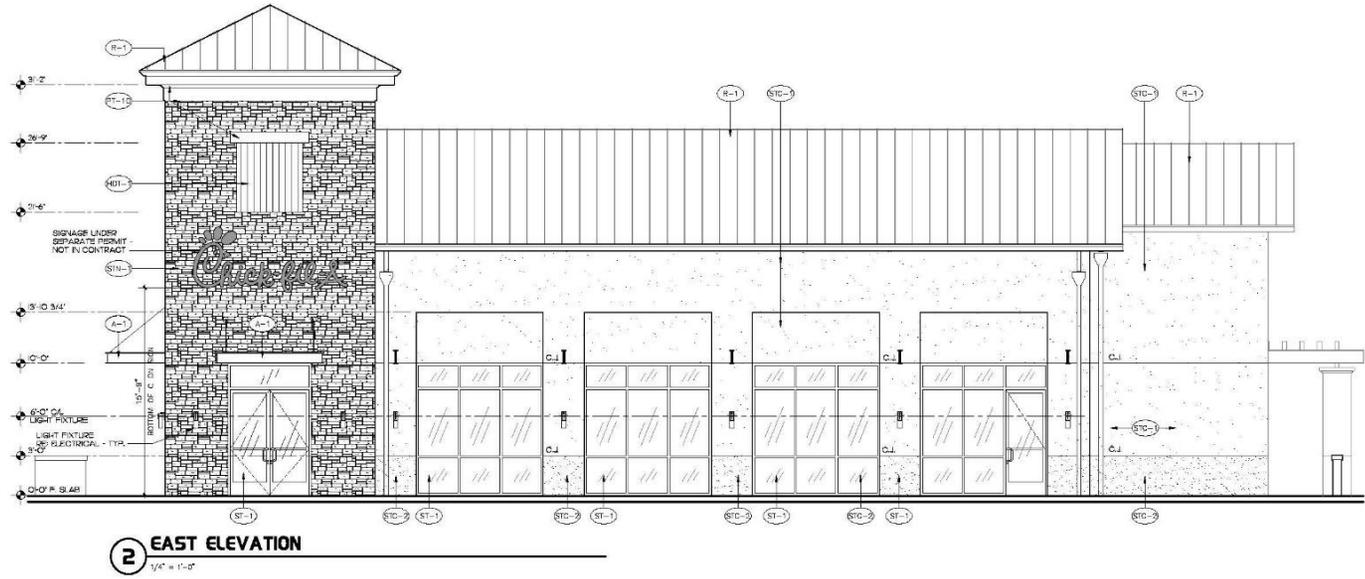
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EXTERIOR FINISHES - FOR STOREFRONT GLAZING - SEE GLASS SCHEDULE & INT. ELEVATIONS			
A-1	ALUMINUM FINISHING - COVERED COLOR: DARK BRONZE (MATT) SEE 8'-4" LENGTH (V.L.U.) X 4'-4" DEPTH	PT-21	PAINT #21 SHERWIN WILLIAMS - PRO INDUSTRIAL ACRYLIC COLOR TO MATCH R-1
A-2	STANDING SEAM METAL ROOF FINISH BERRIDGE CEE LOCK METAL COLOR: CHARCOAL GREY	STN-1	STONE VENEER CORONADO STONE PROLEDGE "ROSSBROAD"
HD-1	HARDWARE JAMES HARDIE 4 X 8 SMOOTH NO "TIMBER BARK"	STC-1	1 1/2" O.C. #1 TO MATCH SHERWIN WILLIAMS #29 7549 "STUDIO TAUPÉ"
PC-1	GLASS FIBER REINFORCED CONCRETE 3/4" PRECAST COLOR: GG 36	STC-2	1 1/2" O.C. #2 TO MATCH SHERWIN WILLIAMS #29706 "SHIZLE GRAY"
PC-2	GLASS FIBER REINFORCED CONCRETE 3/4" PRECAST COLOR: SANDLEWOOD	ST-1	STONEFRONT KAWNEER RED 2.2 COLOR: DARK BRONZE (MATT)
PH-10	PAINT #10 SHERWIN WILLIAMS - #29 7549 "STUDIO TAUPÉ", FLAT FINISH	R-1	ROOF STANDING SEAM METAL ROOF BERRIDGE CEE LOCK METAL "CHARCOAL GREY"

NOTES
ALL ROOFTOP EQUIPMENT SHALL BE SCREENED. ALL
GROUND-MOUNTED EQUIPMENT MUST BE SCREENED BY MASONRY
WALL, CONSTRUCTED TO MATCH THE BUILDING OR WITH
LANDSCAPING PER LIVERMORE DEVELOPMENT CODE SECTION
4.02.04C.02B



1 WEST ELEVATION
1/4" = 1'-0"



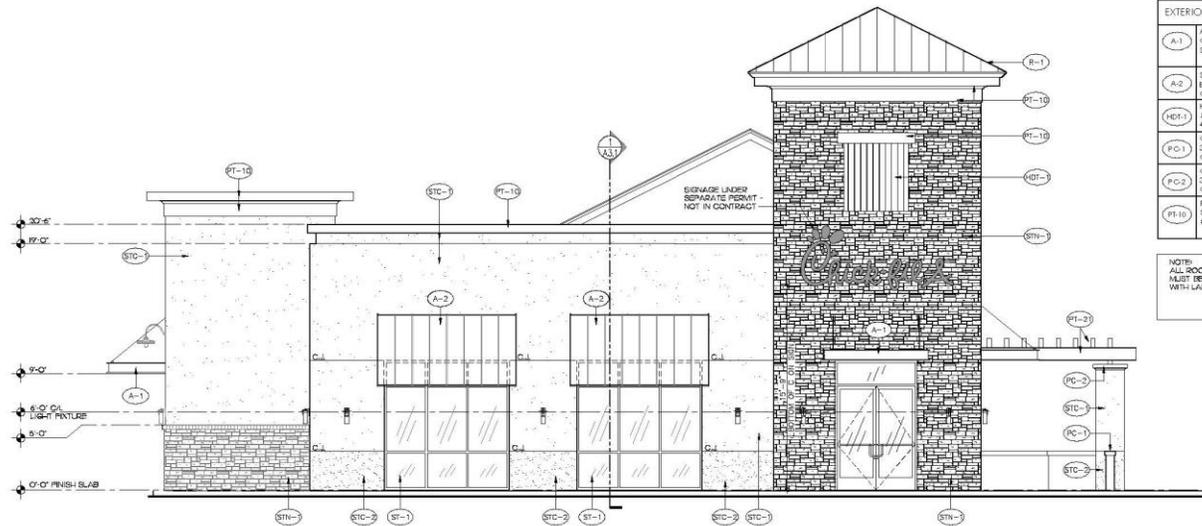
2 EAST ELEVATION
1/4" = 1'-0"

Source: crho Architects 2019

FIGURE 3.0-7a
East and West Elevations

3.0 PROJECT DESCRIPTION

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EXTERIOR FINISHES - FOR STOREFRONT GLAZING - SEE GLASS SCHEDULE & RFD ELEVATIONS			
A-1	ALUMINUM AWNING - COVERED COLOR: DARK BRONZE [MATE] SEE 8'-4" LENGTH (V.L.F.) X 4'-0" DEPTH	PT-21	PANE #21 SHERWIN WILLIAMS - PRO INDUSTRIAL ACRYLIC COLOR TO MATCH R-1
A-2	STANDING SEAM METAL ROOF AWNING BERNICE CEE-LOCK METAL COLOR: CHARCOAL GREY	STN-1	STONE VENEER CORONADO STONE PRO-LEDGE "CORONADO"
HDT-1	HARDIE BRK JAMES HARDIE 4 1/2" MOON RED "TIMBER BARK"	ETC-1	TRUSSO #1 TO MATCH SHERWIN WILLIAMS REW 7549 "STUDIO TAUPE"
PC-1	GLASS FIBER REINFORCED CONCRETE 265 PRECAST COLOR: GG-28	ETC-2	TRUSSO #2 TO MATCH SHERWIN WILLIAMS REVIEW "SPRITZLE GRAY"
PC-2	GLASS FIBER REINFORCED CONCRETE 265 PRECAST COLOR: REASLEWOOD	ST-1	STOREFRONT KAWNEER REGA 1.2 COLOR: DARK BRONZE [MATE]
PT-10	PANE WITH SHERWIN WILLIAMS - REW 7549 "STUDIO TAUPE", FLAT FINISH	R-1	ROOF STANDING SEAM METAL ROOF BERNICE CEE-LOCK METAL "CHARCOAL GREY"

NOTE:
ALL ROOFTOP EQUIPMENT SHALL BE SCREENED. ALL GROUND-MOUNTED EQUIPMENT
MUST BE SCREENED BY MASONRY WALL, CONSTRUCTED TO MATCH THE BUILDING OR
WITH LANDSCAPING. PER LIVABLE DEVELOPMENT CODE SECTION 4.06.04.03B.

1 SOUTH ELEVATION
1/4" = 1'-0"



2 NORTH ELEVATION
1/4" = 1'-0"

Source: crho Architects 2019

FIGURE 3.0-7b
North and South Elevations

3.0 PROJECT DESCRIPTION

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ARROYO LAS POSITAS CLASS I TRAIL CONNECTION

There are portions of the Arroyo Las Positas Class I Trail on the east side of North Livermore Avenue and approximately 1,000 feet to the west. The proposed project includes constructing a segment of the paved trail along the south side of the parking lot and restaurant, as shown in **Figure 3.0-4**. The trail segment, which would vary from approximately 12.5 feet on the west to 16 feet wide near the project entrance, would be placed in a Public Access Easement through the recordation of an irrevocable offer of dedication to the City.

CIRCULATION AND PARKING

There is currently no public roadway access to the project site from North Livermore Avenue or the adjacent commercial property to the south (Jack in the Box). Access to the restaurant portion of the project site is proposed from North Livermore Avenue through a driveway that would align with Arroyo Plaza. This driveway would form the fourth leg of the existing signalized intersection. Improvements to the intersection would be required to allow full access to and from the restaurant driveway. The entry/exit driveway would be three lanes, one entry lane and two exit lanes, as shown on **Figure 3.0-4**.

One entry lane is proposed from the new driveway. Vehicles would enter and circulate within the project site in a clockwise direction. A 42-space surface parking lot is proposed including two accessible spaces. Entering vehicles would either park in the lot or enter the queuing area for the drive-through along the north edge of the site. The proposed drive-through is a single lane and includes space for 18 vehicles to queue. The exit lanes from the proposed restaurant would consist of a left-only lane and a shared through-right lane.

There would be a pedestrian sidewalk along North Livermore Avenue, which would connect the restaurant with existing crosswalks. Provisions for bicycle parking (8 spaces) are proposed near the outdoor dining area.

The proposed off-site improvement on North Livermore Avenue (**Figure 3.0-5**) would consist of constructing a 100-foot-long northbound left-turn lane along North Livermore Avenue. Existing lanes on North Livermore Avenue would be shifted approximately 3 feet to the east, and the existing median would be narrowed to accommodate the addition of the left-turn lane. Existing trees in the median would be removed to accommodate the improvement but would be replaced.

LANDSCAPING AND LIGHTING

Proposed landscaping at the restaurant site would include trees and shrubs on in the parking lot and along the perimeter (**Figure 3.0-8**).

The restaurant project lighting would include parking lot lights on 18-foot-tall poles and building-mounted exterior fixtures. All project lighting would be required to comply with the performance standards in the Livermore General Plan Policy CC-1.3.P1 that protects the nighttime sky, and other applicable City standards.

UTILITIES

The restaurant project would connect to the existing water, sewer, electrical, and telecommunications networks. Electrical and natural gas service would be provided by the Pacific Gas and Electric Company (PG&E). The project would receive potable water from the California Water Service Company and sewer and storm drain service from the City of Livermore.

3.0 PROJECT DESCRIPTION

The restaurant project includes construction of two stormwater bioretention basins along the east and west property boundaries, as shown in **Figure 3.0-9**. The basins would be designed and constructed to comply with the San Francisco Bay Regional Water Quality Control Board Municipal Regional Permit, which is implemented through adherence to the City's Municipal Stormwater Permit in accordance with Chapter 13.45 of the Livermore Municipal Code. All site drainage would be routed to these basins through a 12-inch storm drain line constructed in the southern part of the site, which would connect to an existing 48-inch storm drain line in North Livermore Avenue (**Figure 3.0-10**). The basins would be sized to ensure that the overall site discharge remains the same as under existing conditions. Final basin sizing (along with drop inlet elevations and conveyance lines) will be confirmed in conjunction with issuance of the building permit. No modification to the southern bank or channel is proposed as part of the stormwater system design. The project will be required to construct any wet or dry utility main lines needed to connect to the site and construct all necessary conveyance infrastructure to connect to the public service providers' existing infrastructure.

PROJECT PHASING AND CONSTRUCTION

Construction of the project is expected to commence in 2021 and would be completed in approximately 12 months. During construction, surrounding streets would not be closed and materials would be hauled in and out of the project area using city streets. Grading would require the export of approximately 1,400 cubic yards of material in 100 to 120 haul trips. Project construction would require the use of off-road equipment, such as haul trucks and small bulldozers, and could use groundborne vibration-generating construction equipment, such as rollers. All construction staging (equipment and materials) would be on-site.

The proposed project would include a pier wall along a portion of the northern boundary of the restaurant site, as shown in **Figure 3.0-11**. The pier wall is intended to ensure stability of the south bank of Arroyo Las Positas on the north side of the restaurant site because the building is proposed within the creek setback area and the bank may be susceptible to natural erosion. A large drill rig would be used to drill approximately 45 to 50 24-inch-diameter pier holes spaced approximately 6 feet on center to design depth (approximately 30 feet below grade). There would be a minimum 8-foot offset from the back of the buried piers to the proposed restaurant and drive-through. Drill spoils would be stockpiled on site and incorporated into site grading for the restaurant pad. A steel rebar cage would be lowered and secured in the pier hole. Concrete would then be placed in the pier holes, back to the ground surface.

Consistent with the City's Noise Ordinance 9.36.080 (Livermore 2017), construction would not occur between the hours of 6:00 p.m. Saturday and 7:00 a.m. Monday; between 8:00 p.m. and 7:00 a.m. on Monday, Tuesday, Wednesday, and Thursday; between 8:00 p.m. Friday and 9:00 a.m. on Saturday; or on City-observed holidays.

PLANTING LEGEND

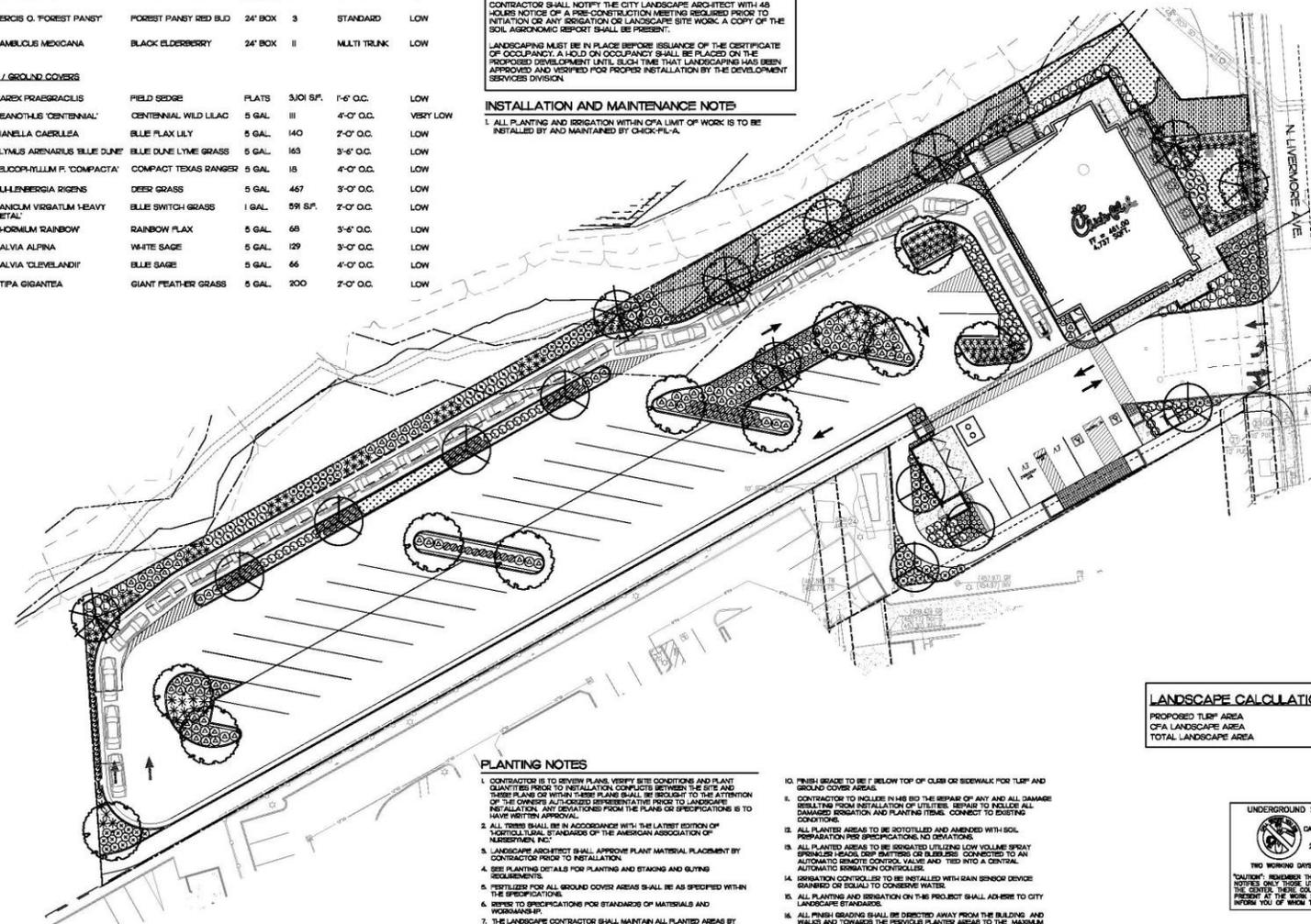
SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	QTY.	REMARKS	WATER USE (WILCOX REGION)
TREES						
	ACER NEGUNDO	MANTOBA MAPLE	24" BOX	13	STANDARD	LOW
	CERCIS O. 'FOREST PANSY'	FOREST PANSY RED BUD	24" BOX	3	STANDARD	LOW
	SAMBUCUS MEXICANA	BLACK ELDERBERRY	24" BOX	11	MULTI TRUNK	LOW
SHRUBS / GROUND COVERS						
	CAREX PRASBRACILIS	FIELD SEDGE	PLATS	3/01 SF.	1'-6" O.C.	LOW
	CEANOTHUS 'CENTENNIAL'	CENTENNIAL WILD LILAC	5 GAL	111	4'-0" O.C.	VERY LOW
	DIANELLA CAERULEA	BLUE FLAX LILY	5 GAL	140	2'-0" O.C.	LOW
	ELYMUS ARENARIUS 'BLUE DUNE'	BLUE DUNE LYME GRASS	5 GAL	163	3'-6" O.C.	LOW
	LEUCOPHYLLUM P. 'COMPACTA'	COMPACT TEXAS RANGER	5 GAL	15	4'-0" O.C.	LOW
	MULLENBERGIA RIGENS	DEER GRASS	5 GAL	467	3'-0" O.C.	LOW
	PANICUM VIRGATUM 'HEAVY METAL'	BLUE SWITCH GRASS	1 GAL	591 SF.	2'-0" O.C.	LOW
	PHORMIUM RAINBOW	RAINBOW FLAX	5 GAL	68	3'-6" O.C.	LOW
	SALVIA ALPINA	WHITE SAGE	5 GAL	129	3'-0" O.C.	LOW
	SALVIA 'CLEVELAND'	BLUE SAGE	5 GAL	66	4'-0" O.C.	LOW
	STIPA GIGANTEA	GIANT FEATHER GRASS	5 GAL	200	2'-0" O.C.	LOW

GENERAL NOTES

CONTRACTOR SHALL NOTIFY UNDERGROUND SERVICE ALERT BEFORE START OF CONSTRUCTION (2 WORKING DAYS OR 48 HOURS).
 CONTRACTOR SHALL VERIFY EXISTING LOCATION OF UTILITIES AS NECESSARY TO IDENTIFY LOCATION.
 CONTRACTOR SHALL NOTIFY THE CITY LANDSCAPE ARCHITECT WITH 48 HOURS NOTICE OF A PRE-CONSTRUCTION MEETING REQUIRED PRIOR TO INITIATION OF ANY IRRIGATION OR LANDSCAPE SITE WORK. A COPY OF THE SOIL AGRONOMIC REPORT SHALL BE PRESENT.
 LANDSCAPING MUST BE IN PLACE BEFORE ISSUANCE OF THE CERTIFICATE OF OCCUPANCY. A HOLD ON OCCUPANCY SHALL BE PLACED ON THE PROPOSED DEVELOPMENT UNTIL SUCH TIME THAT LANDSCAPING HAS BEEN APPROVED AND VERIFIED FOR PROPER INSTALLATION BY THE DEVELOPMENT SERVICES DIVISION.

INSTALLATION AND MAINTENANCE NOTE

1. ALL PLANTING AND IRRIGATION WITHIN CFA LIMIT OF WORK IS TO BE INSTALLED BY AND MAINTAINED BY CHOK-PIL-A.



PLANTING NOTES

- CONTRACTOR IS TO REVIEW PLANS, VERIFY SITE CONDITIONS AND PLANT QUANTITIES PRIOR TO INSTALLATION. CONFIRMS BETWEEN THE SITE AND THESE PLANS OR WITHIN THESE PLANS SHALL BE SUBJECT TO THE ATTENTION OF THE OWNER. ANY DEVIATIONS FROM THE PLANS OR SPECIFICATIONS IS TO HAVE WRITTEN APPROVAL.
- ALL TREES SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF 'NURSERYMAN'S' STANDARD OF THE AMERICAN ASSOCIATION OF NURSERYMEN, INC.
- LANDSCAPE ARCHITECT SHALL APPROVE PLANT MATERIAL PLACEMENT BY CONTRACTOR PRIOR TO INSTALLATION.
- SEE PLANTING DETAILS FOR PLANTING AND STAKING AND GUTTING REQUIREMENTS.
- FERTILIZERS FOR ALL GROUND COVER AREAS SHALL BE AS SPECIFIED WITHIN THE SPECIFICATIONS.
- REFER TO SPECIFICATIONS FOR STANDARDS OF MATERIALS AND WORKMANSHIP.
- THE LANDSCAPE CONTRACTOR SHALL MAINTAIN ALL PLANTED AREAS BY MEANS OF CONTINUOUS WATERING. FOLIAGE, TREES SHALL BE SETTLED BELOW GRADE. FERTILIZING, APPLICATION OF SPRAYS WHICH ARE NECESSARY TO KEEP THE PLANTING FREE OF INSECTS AND DISEASES, WEEDING, SOILING, MOWING, GRASSING, EDGING AND/OR OTHER OPERATIONS NECESSARY FOR PROPER CARE AND LIVESHIP. THE LANDSCAPE CONTRACTOR SHALL MAINTAIN ALL PLANTINGS AS SPECIFIED ABOVE FOR A PERIOD OF NINETY (90) DAYS.
- ALL GRASS AREAS TO BE TOP DRESSED WITH 3 LAYERS OF FINE SHARDED REDWOOD BARK. ALL TOP DRESSING TO BE RETIRED TO TOP OF WALK.
- ALL TREES PLANTED WITHIN SEVEN (7) FEET OF ANY PAVING WALLS, BUILDINGS, CURBS, ETC. SHALL BE INSTALLED WITH AN APPROVED DEEP ROOT BARREX (SOILING PLANS).

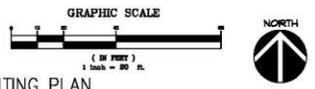
- FINISH GRADE TO BE 1" BELOW TOP OF CURB OR SIDEWALK FOR 'TWP' AND GROUND COVER AREAS.
- CONTRACTOR TO INCLUDE IN PLAN BID THE REPAIR OF ANY AND ALL DAMAGE RESULTING FROM INSTALLATION OF UTILITIES. REPAIR TO INCLUDE ALL DAMAGED IRRIGATION AND PLANTING ITEMS. CONNECT TO EXISTING CONDITIONS.
- ALL PLANTED AREAS TO BE SOFTTILLED AND AMENDED WITH SOIL PREPARATION PER SPECIFICATIONS. NO DEVIATIONS.
- ALL PLANTED AREAS TO BE IRRIGATED UTILIZING LOW VOLUME SPRAY SPRINKLERS. MANUAL SHUT OFFERS OR BUBBLERS. CONNECTED TO AN AUTOMATIC REMOTE CONTROL VALVE AND TIED INTO A CENTRAL AUTOMATIC IRRIGATION CONTROLLER.
- IRRIGATION CONTROLLER TO BE INSTALLED WITH RAIN SENSOR DEVICE. SHARED OR EQUAL TO CONSERVE WATER.
- ALL PLANTING AND IRRIGATION ON THIS PROJECT SHALL ADHERE TO CITY LANDSCAPE STANDARDS.
- ALL FINISH GRASSING SHALL BE OBSERVED AWAY FROM THE BUILDING AND WALLS AND TOWARDS THE PERVIOUS PLANTING AREAS TO THE MAXIMUM EXTENT PRACTICABLE REFER TO CIVIL PLANS FOR GRADING & DRAINAGE.
- ALL BACKFLOW PREVENTERS AND UTILITIES TO BE SCREENED WITH LANDSCAPE.
- DEVELOPED AREAS OF THIS PROJECT SHALL BE PERMANENTLY MAINTAINED WITH AN AUTOMATIC IRRIGATION SYSTEM.
- PRIOR TO FINAL CITY INSPECTION, THE LANDSCAPE ARCHITECT SHALL SUBMIT A CERTIFICATE OF COMPLETION TO THE PUBLIC UTILITIES DEVELOPMENT.
- ALL LANDSCAPE AND IRRIGATION DESIGNS SHALL MEET CLIENT CITY STANDARDS AS LISTED IN GUIDELINES OR AS OBTAINED FROM PUBLIC UTILITIES DEVELOPMENT.

LANDSCAPE CALCULATIONS

PROPOSED 'TWP' AREA	0 SF.
CFA LANDSCAPE AREA	15,640 SF.
TOTAL LANDSCAPE AREA	15,640 SF.

UNDERGROUND SERVICE ALERT

CALL TOLL FREE
1-800-227-2600
TWO WORKING DAYS BEFORE YOU DIG
CAUTION! REMEMBER THAT THE USA CENTER NOTICES ONLY THOSE UTILITIES BELONGING TO THE COMPANY. THERE SHOULD BE OTHER UTILITIES PRESENT AT THE WORK SITE. THE CENTER WILL INFORM YOU OF WHOM THEY WILL NOTIFY.

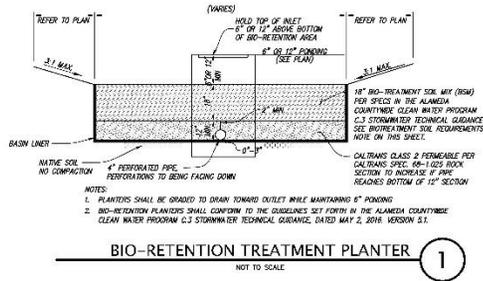


1 PLANTING PLAN
1" = 30'-0"

Source: crho Architects 2019

3.0 PROJECT DESCRIPTION

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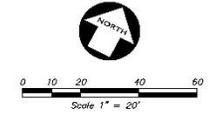
TREATMENT SUMMARY TABLE

Drainage Area	Area (Sq Ft)	Infiltration Area (Sq Ft)	Permeable Area (Sq Ft)	Impervious Area (Sq Ft)	Bioretention Area Required* (Sq Ft)	Bioretention Area Provided (Sq Ft)	Overflow Rise/Height (In)	Treatment Type	
1	66,498	1,527	8,455	0,194	58,003	1,332	1,925	12	Bioretention Planter
2	3,703	0,000	2,759	0,000	954	0,000	12	Bioretention Planter	
TOTAL	70,201								
		TOTAL IMPERVIOUS AREA: 59,627		TOTAL PERVIOUS AREA: 10,604					

* Bioretention Planters are sized to accommodate the hydrological flow requirements. Please refer to BAHM calculations for this project.

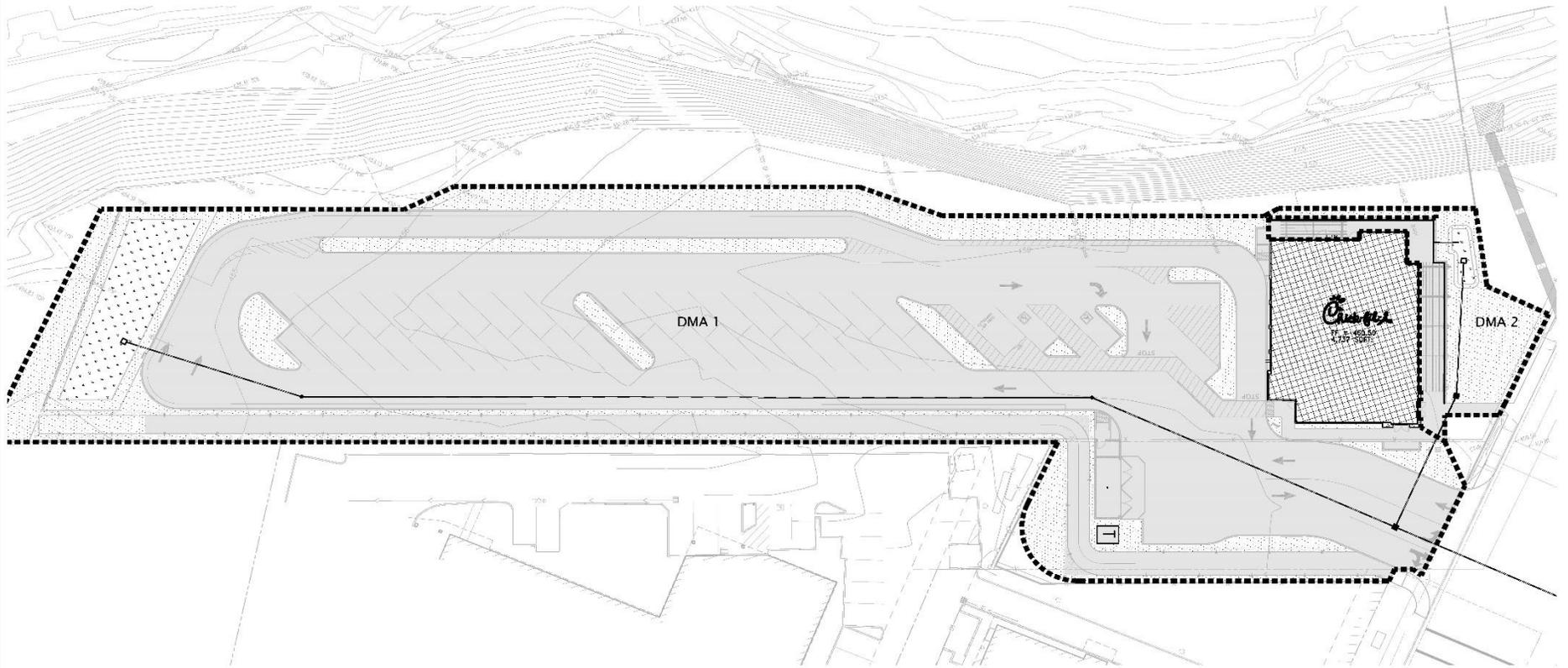
SWQ SUMMARY

TOTAL SITE	70,261	SF
TOTAL PRE-PROJECT IMPERVIOUS AREA	0	SF
TOTAL REPLACED IMPERVIOUS AREA	0	SF
TOTAL NEW/REPLACED IMPERVIOUS AREA	59,627	SF
TOTAL TREATED IMPERVIOUS AREA	59,627	SF



LEGEND

- TRIBUTARY AREA LIMITS
- BIORETENTION TREATMENT AREA
- LANDSCAPE AREA
- IMPERVIOUS ROOFTOP DRAINING TO BIORETENTION PLANTER
- IMPERVIOUS PAVEMENT DRAINING TO BIORETENTION PLANTER

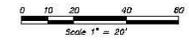


Source: Kier+Wright 2020

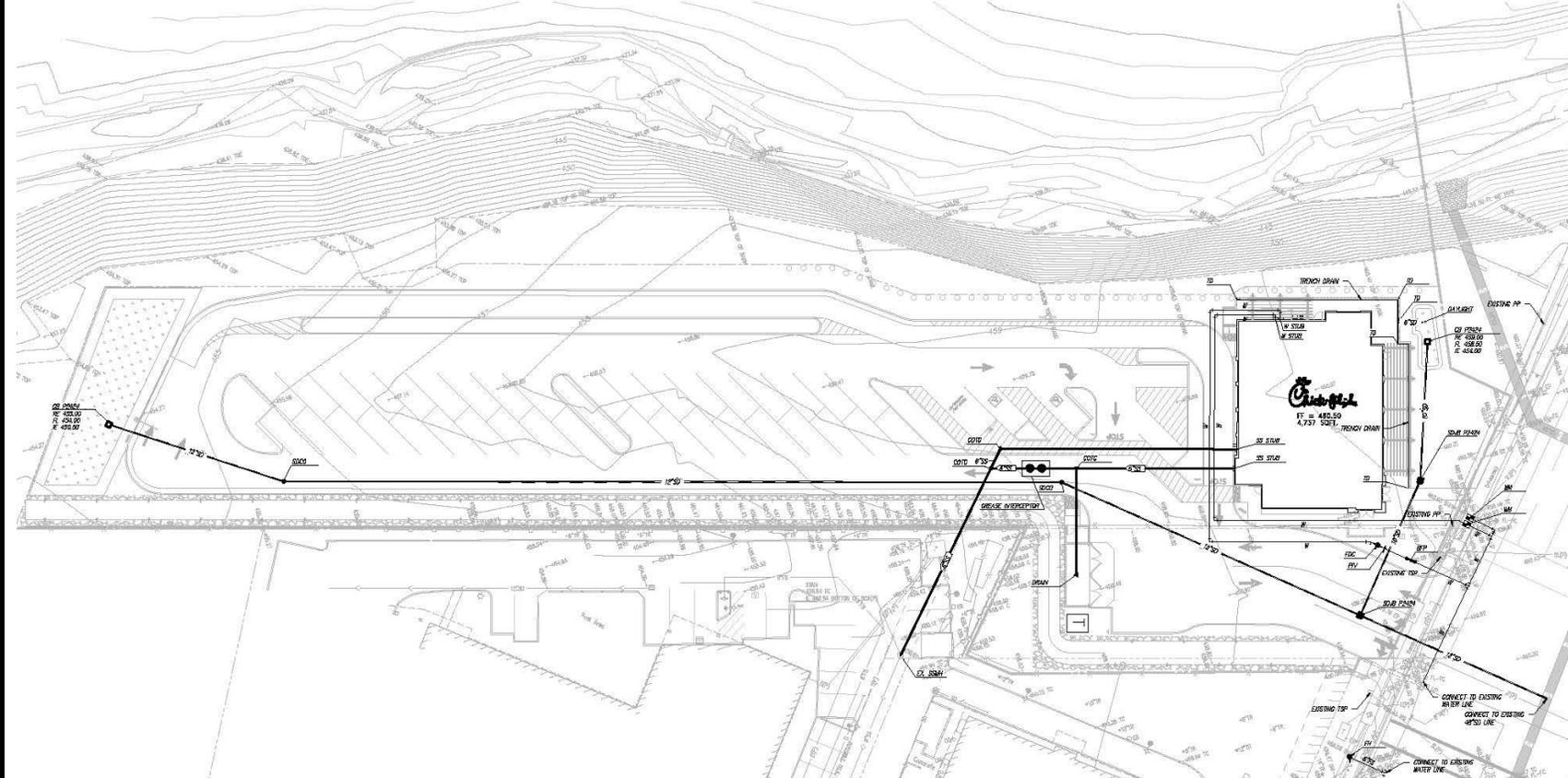
FIGURE 3.0-9
Stormwater Management Plan

3.0 PROJECT DESCRIPTION

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LEGEND	
ASR	AUTOMATIC SPRINKLER RISER
RE	RIM ELEVATION
TC	TOP OF CURB
MS	WATER SERVICE
---	EXISTING UTILITY TO BE ABANDONED BY REMOVAL
FS	FIRE SERVICE
---	STANTARY SEWER
---	CLEANOUT TO GRADE
---	STORM DRAIN LINE
---	AREA DRAIN
---	STORM DRAIN GATEY BASIN
---	STORM DRAIN MANHOLE BOX
---	STORM DRAIN MANHOLE
---	BACK FLOW PREVENTION DEVICE
---	FIRE DEPARTMENT CONNECTION
---	FIRE HYDRANT & VALVE
---	POST INDICATOR VALVE
---	SEWER SEWER MANHOLE
---	SINGLE CHECK VALVE
---	STORM DRAIN MANHOLE
---	WATER METER

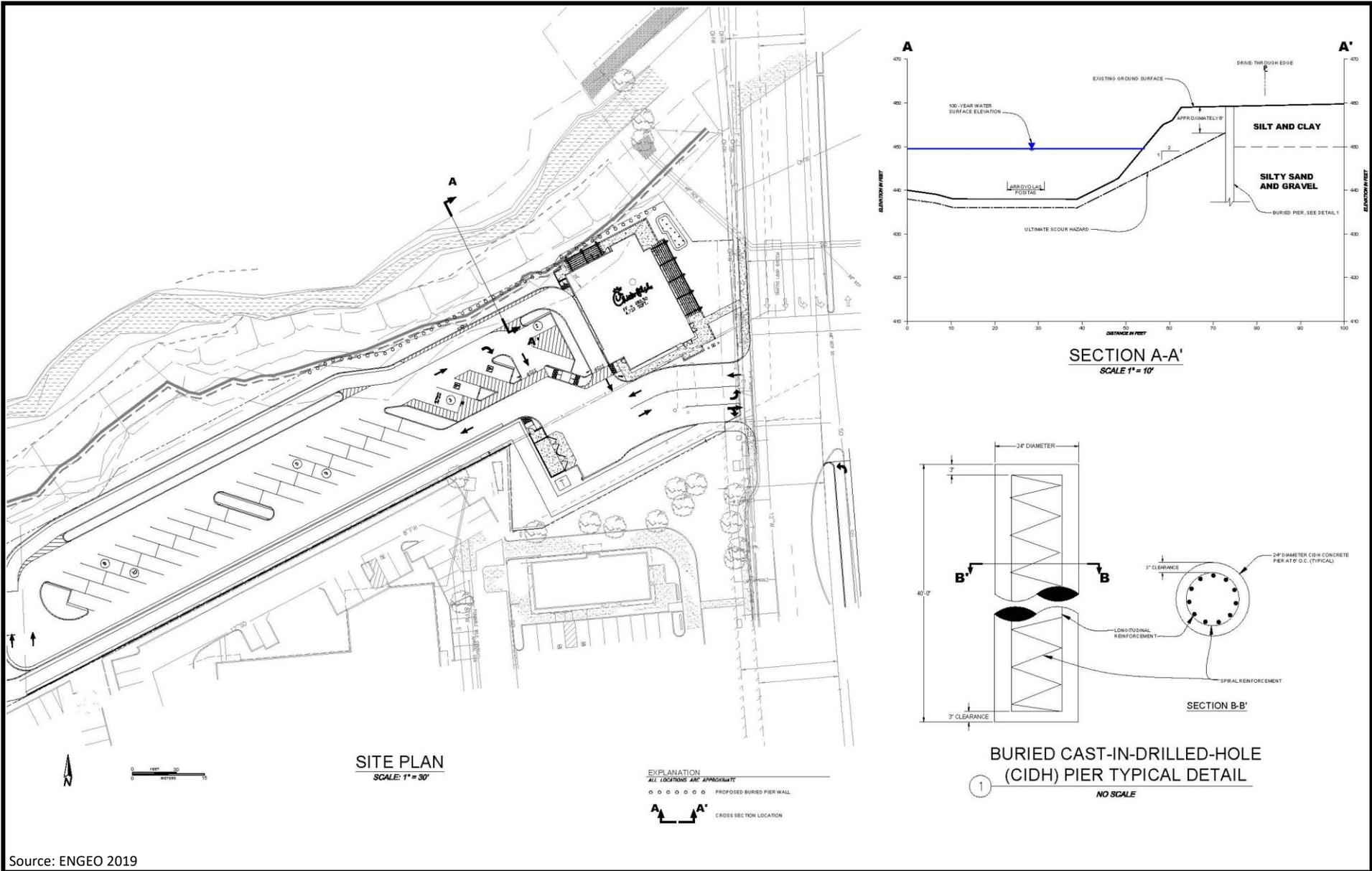


Source: Kier+Wright 2020

FIGURE 3.0-10
Utility Plan

3.0 PROJECT DESCRIPTION

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Source: ENGEO 2019

FIGURE 3.0-11
Pier Wall

3.0 PROJECT DESCRIPTION

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PROPOSED GENERAL PLAN AND ZONING CHANGES

The project seeks General Plan amendments to:

- Annex and pre-zone approximately 1.5 acres for the restaurant site as Highway Service Commercial (CHS).
- Annex and pre-zone the remaining approximately 21.5 acres as Open Space-Floodplain (OS-F).
- Change the land use designation for the 1.5-acre site proposed for the restaurant from Open Space (OSP) to Business and Commercial Park (BCP).

Figure 3.0-12 shows the proposed land use designation change, and Figure 3.0-13 shows the zoning for the site. These changes are summarized in Table 3.0-3.

TABLE 3.0-3
PROPOSED GENERAL PLAN LAND USE DESIGNATIONS AND ZONING CHANGES

APN	Current General Plan Designation	Proposed General Plan Designation	Current Zoning	Proposed Zoning
99-100-3-5	City of Livermore: Open Space (OSP) Alameda County: Water Management	City of Livermore: restaurant portion BCP; area north of Arroyo Las Positas open space (OSP)	City of Livermore: not currently zoned Alameda County: Agriculture	City of Livermore: restaurant portion Highway Service Commercial (CHS); area north of Arroyo Las Positas Open Space-Floodplain (OS-F)
99-100-4-4*	City of Livermore: Open Space (OSP) Alameda County: Industrial	City of Livermore: BCP	City of Livermore: not currently zoned Alameda County: Agriculture	City of Livermore: CHS
99-100-51-1*	City of Livermore: Business and Commercial Park (BCP)	City of Livermore: BCP	City of Livermore: Highway Service Commercial (CHS)	City of Livermore: CHS. Portion of trail dedicated through Public Access Easement.

Notes:

*Parcels would be merged through a tentative parcel map to create an approximately +/- 1.5-acre restaurant pad area.

3.0 PROJECT DESCRIPTION

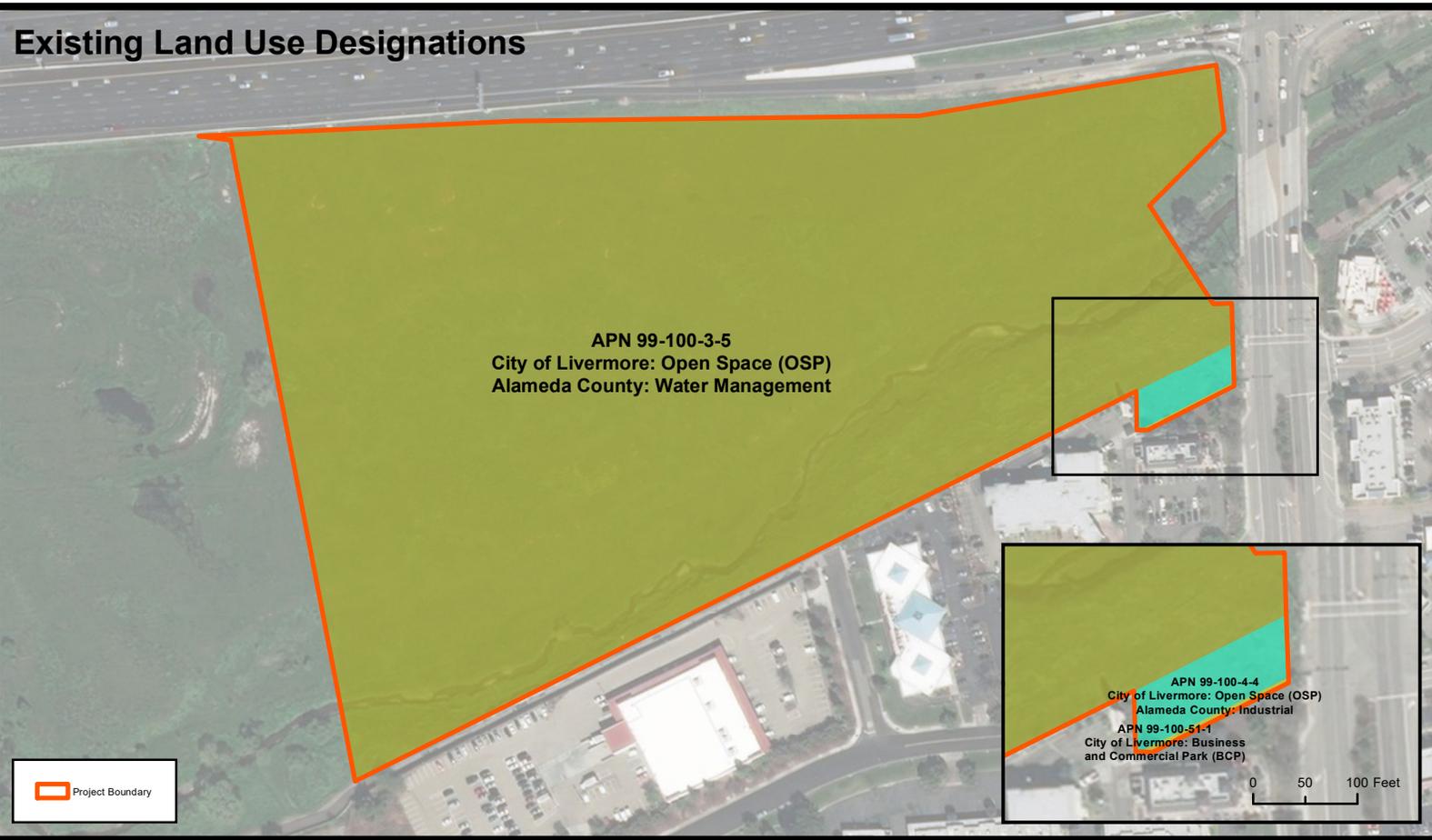
3.4 PROJECT APPROVALS

As the lead agency, the City of Livermore has the ultimate authority for project approval or denial. The proposed project will require the following discretionary approvals and permits for actions proposed as part of the project:

- Adoption of an Initial Study/Mitigated Negative Declaration
- Site Plan
- Design Review
- Conditional Use Permit
- General Plan Land Use Map amendment for the 1.5-acre restaurant project site only
- Pre-zoning and Zoning Map amendment
- Tentative parcel map
- Grading and building permits
- Development Agreement

The Alameda County Local Agency Foundation (LAFCO) will need to review the annexation and pre-zoning application. The City will need to pass a Resolution of Annexation and file an application with LAFCO to annex APN 099-0100-004-04 and APN 099-0100-003-05 from the County and the City of Livermore's sphere of influence into the City.

Existing Land Use Designations



Proposed Land Use Designations

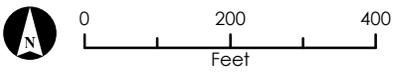
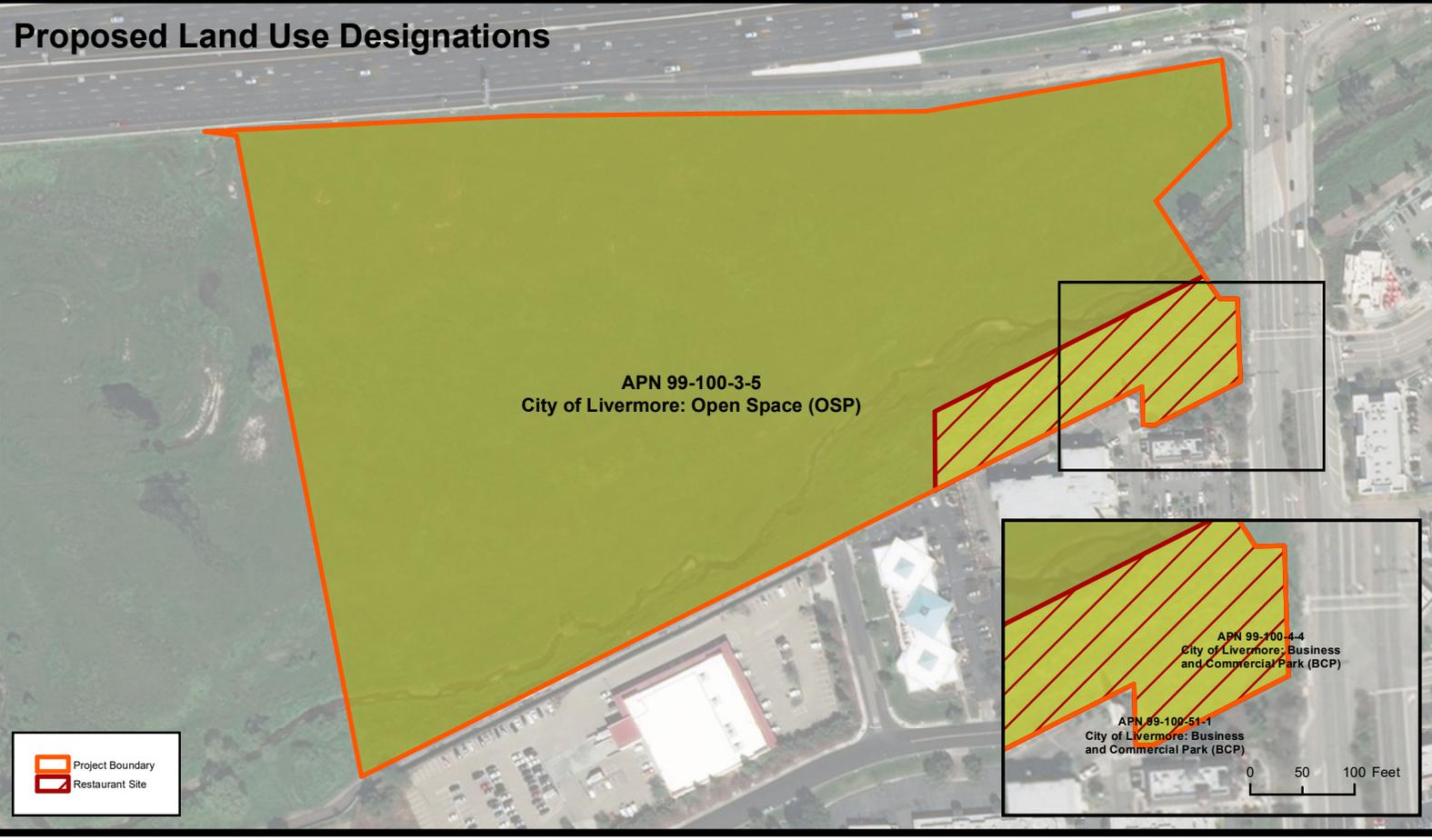


FIGURE 3.0-12
Existing and Proposed General Plan Land Use Designations

3.0 PROJECT DESCRIPTION

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Existing Zoning



Proposed Zoning

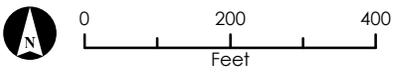
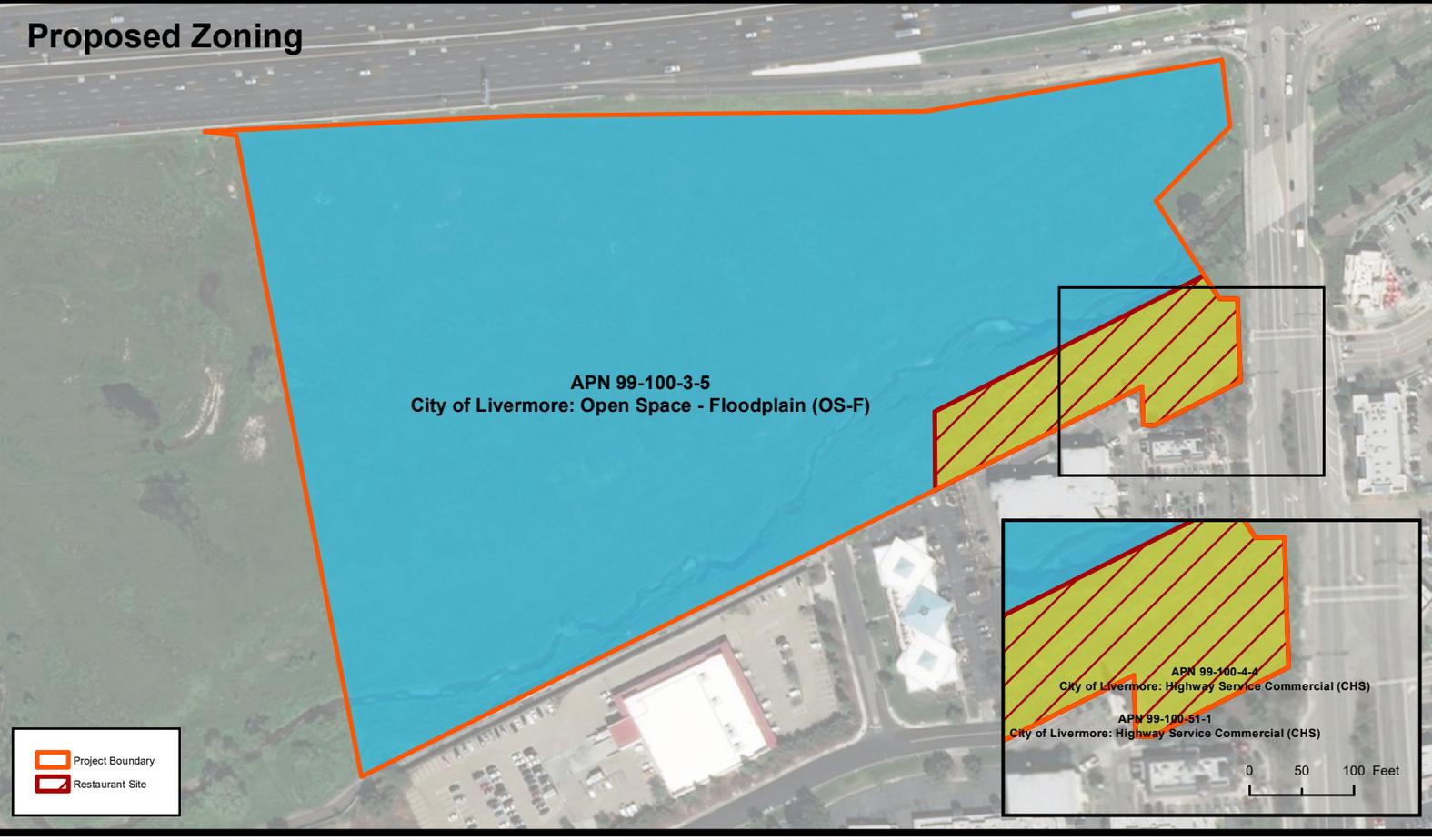


FIGURE 3.0-13
Existing and Proposed Zoning

3.0 PROJECT DESCRIPTION

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4.0 ENVIRONMENTAL CHECKLIST

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
4.1 AESTHETICS. Except as provided in Public Resources Code Section 21099, would the project:				
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input 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) In non-urbanized areas, substantially degrade the existing visual character or quality of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage points.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

SETTING

Scenic Vistas

Scenic vistas are typically described as areas of natural beauty with features such as watercourses, rock outcrops, and natural vegetation that contribute to the landscape's quality. Livermore's location in the Livermore Valley provides topographical and visual interest, and views of the surrounding hillsides are one of the city's primary visual characteristics and amenities. Hill and ridgeline views are available from many vantage points within the city limits (City of Livermore 2004). In the vicinity of the project site, there are views of the hills and ridges to the north across I-580 from North Livermore Avenue as well as views of distant ridges to the south and smaller grassy hills to the southeast.

Scenic Resources within Scenic Highways

Scenic resources typically include trees, rock outcroppings, and historic buildings within a state scenic highway. There are no trees, rock outcroppings, historic buildings, or other scenic resources on the site that add to the scenic quality of I-580 at the North Livermore Avenue/I-580 intersection. I-580 in Livermore is designated as an eligible state scenic highway (not officially designated) by the California Department of Transportation (Caltrans) State Scenic Highway Program (Caltrans 2015).

I-580 and several other roadways are designated local scenic corridors in the Livermore General Plan for their quality of views. The City of Livermore has designated the portion of North Livermore Avenue adjacent to the project site a scenic route (City of Livermore 2004). Requirements for development of normal uses include preserving panoramic views and vistas.

Policies in the General Plan protect and enhance public views from and in these corridors. The I-580 scenic corridor provides views of Livermore's surrounding hillsides and ridgelines and is defined as the area within 3,500 feet of the freeway centerline and visible from the roadway.

4.0 ENVIRONMENTAL CHECKLIST

The project site is situated within the I-580 scenic corridor, Subarea 5, Subpart 5A, at the easternmost edge where it adjoins Subarea 5B to the east, as depicted in Figures 4-9 and 4-11 in the City of Livermore General Plan (City of Livermore 2004). North Livermore Avenue divides the two subparts. The General Plan includes specific requirements for residential and commercial areas in Subpart 5A south of the proposed restaurant site, but it does not contain any prescriptive requirements for the area where the proposed restaurant is situated such as height limits or requirements for view angles. However, directly across Livermore Avenue to the east, the General Plan establishes a view angle of 2.4 degrees for new development in Subpart 5B.

Visual Character

Visual character is the overall perceptible aesthetic quality of an area created by its unique combination of visual features such as form, bulk, scale, texture, color, and viewing range. Generally, the key factors in determining the potential adverse impact on visual character are (1) substantial changes to the existing physical features of the landscape that are characteristic of the region or locale; (2) the introduction of new features to the physical landscape that are perceptibly uncharacteristic of the region or locale or that become visually dominant from common view points; or (3) blocked or completely obscured scenic resources within the landscape.

The 23-acre project site is relatively flat (with the exception of the Arroyo Las Positas channel) and undeveloped and consists of non-native weeds and grasses that reflect its use for grazing (Photos 1 through 4). There is a slight upward slope toward I-580. Arroyo Las Positas is an intermittent creek that contains various structures within the creek channel, which detract from its appearance as a natural feature. There is a steep, approximately 20-foot-high slope on the north side of the proposed site for the restaurant. The slope is visible from I-580 and the North Livermore Avenue bridge crossing (Photo 5). Because of the depth of the channel relative to the flat terrain surrounding it, the creek is not readily visible from the south. Although there are a few trees and shrubs on the north bank of the creek adjacent to North Livermore Avenue, there are no visually distinctive features on the site. The undeveloped and vegetated nature of the project site gives it an overall natural appearance and provides visual relief between I-580 and development to the south in the immediate vicinity, but the site remains dominated by the I-580 freeway structure in the background, electric transmission lines in the area, and surrounding urban development to the west, south, and east.

The General Plan (City of Livermore 2004) requires of proposed development within scenic routes: "Site planning, architectural, and landscape architectural design review shall be required so that development will be attractive from the highway and roads, and a harmonious relationship will exist among the various elements of proposed and existing developments and the visual qualities of the scenic route."

DISCUSSION OF IMPACTS

- a) **Less Than Significant Impact.** The project site is within the I-580 scenic corridor and adjacent to North Livermore Avenue, a designated scenic route in the General Plan. The project would be visible from eastbound I-580, although such views would last only a few seconds at freeway speed. Views to the south from I-580 would not be impacted.¹ Views of hills and

¹ To the east and approximately 100 feet from the project site, the General Plan indicates a view angle limit of 2.4 degrees for new development in Subpart 5B. Although not required, the view angle of the project from I-580 was calculated for informational purposes. The elevation of the outside, eastbound lane at a spot looking at the project site, perpendicular from I-580, is 484 feet, and eye level would be 488 feet. The finished floor of the proposed restaurant would be at elevation

ridges to the north and southeast from North Livermore Avenue would also not be adversely affected. When viewed from eastbound I-580 and the southbound lane of North Livermore Avenue, the proposed restaurant would not appear as incongruous or obtrusive feature in short-range views because it would be visually dominated by an adjacent three-story hotel and an approximately 45-foot-tall monument sign, which are both substantially taller than the proposed restaurant building. When viewed from northbound North Livermore Avenue, the I-580 overcrossing dominates the view and partially obscures views of hills farther to the north. Therefore, the project would not obstruct any scenic views from these corridors and routes and would not have a substantial adverse effect on a scenic vista. Impacts would be less than significant.

- b) **No Impact.** I-580 is a locally designated scenic highway corridor, eligible but not officially designated by the State of California. The project site is visible from I-580. However, there are no visually significant trees, rock outcroppings, historic buildings, or other scenic resources on the site that add to the scenic quality of I-580 at the North Livermore Avenue/I-580 intersection. Therefore, the project would not substantially degrade scenic resources within a state scenic highway, and there would be no impact.
- c) **Less Than Significant Impact.** The natural-appearing character of the project site south of the seasonal creek to the project boundary adjoining a fast food restaurant would be modified by development of the proposed restaurant. The approximately 4,740-square-foot restaurant building would be designed with various design elements for visual interest such as varying wall planes, stone veneer on corner towers that are slightly higher than the main building, various finishes, and colors to create architectural interest. As illustrated in **Figure 3.0-6**, the building exterior would be painted with neutral colors (gray, taupe, and ivory). Fabric awnings in a dark neutral tone would be installed over non-reflective windows. Proposed landscaping includes trees and shrubs on the northern side, adjoining the proposed multi-use trail, within the parking lot, and along the perimeter. The proposed restaurant would be similar in form, bulk, scale, texture, and color relative to adjacent commercial development, which includes a fast food restaurant, gas station, and a three-story hotel. It would have a maximum height of approximately 36.7 feet at its tallest point, which is allowable with a Conditional Use Permit in the CHS zone. While the visual quality of the restaurant portion of the project site would change, the proposed restaurant would create a visual continuation of the commercial development associated with existing highway services and commercial development along North Livermore Avenue adjoining the site and farther south and would not be visually obtrusive or incongruous when viewed from public viewpoints at off-site locations to the west, south, east, or north (from I-580). Because of its location within the I-580 scenic corridor and the North Livermore Avenue scenic route, prior to the Site Plan Design Review entitlement approval, the City will review the project for consistency with the City's Design Standards and Guidelines regarding site planning, architecture, and landscape architecture.

The undeveloped open space between the restaurant site and I-580 would remain unchanged. The open space area would continue to provide visual relief between I-580 and urban development, including the proposed restaurant, to the south.

461 feet, and the peak of the tallest feature of the tower feature on the building (36.7 feet), resulting in an elevation of 497.7 feet. The high point of the proposed building is approximately 500 feet from the viewpoint in the outside eastbound lane on I-580. The view angle (VA) is calculated by: $VA = \tan^{-1}(\text{height}/\text{horizontal distance}) = \tan^{-1}((497.7-488)/500) = 1.1$ degrees. This is less than the 2.4-degree view angle for Subpart 5B.

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Therefore, the project would not substantially degrade the existing visual character or quality of the site and its surroundings, and the impact would be less than significant.

- d) **Less Than Significant Impact.** The project site is undeveloped, and there are no sources of light and glare on the project site. Developed areas adjacent to the project site contain sources of light and glare that emanate from commercial buildings, parking lots, and outdoor lighting. Other nearby sources of nighttime lighting include streetlights and vehicles traveling along North Livermore Avenue and I-580. As such, nighttime views of the site and the effect of nighttime lighting in the project vicinity have already resulted in diminished nighttime views to some extent. The proposed restaurant would include freestanding lighting in parking lots (18 feet tall) with downward-shielded fixtures and exterior building lighting. A photometric survey has been prepared for the restaurant, which demonstrates there would be no substantial light spillover onto adjacent commercial properties. The proposed restaurant would include glass windows on all sides. The windows would be made of nonreflective material, and dark fabric awnings over the windows would help reduce glare potential. Sunlight and reflections from windshields on vehicles in the parking lot could also be a potential source of glare. Trees planted in the parking lot would provide shade, which would help reduce glare as well. While nighttime lighting at the restaurant and potentially reflective surfaces such as windows would introduce new sources of daytime glare and nighttime glow, these additional sources of light and glare would be visible from surrounding land uses and would contribute to existing nighttime lighting and glare in the vicinity. However, the project would not be a new or substantial source of light and glare relative to the immediate vicinity. In addition, the types of land uses that are typically sensitive to excess light and glare include residential uses, hospitals, senior housing, and other types of uses where excessive light may disrupt sleep. The closest light-sensitive use is residential development, more than one-quarter mile southeast and southwest of the site. As such, the project would not affect light-sensitive uses. The final lighting plan and fixtures will be required to demonstrate compliance with the City of Livermore Design Standards and Guidelines, Section F (City of Livermore 2004) prior to issuance of a building permit. Impacts would be less than significant.

Mitigation Measures

None required.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
<p>4.2 AGRICULTURAL AND FORESTRY RESOURCES. In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997), prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the project:</p>				
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 nonagricultural 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 checked="" type="checkbox"/>	<input type="checkbox"/>
c) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to nonagricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Conflict with existing zoning for, or cause rezoning of, forestland (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 in Public Resources Code Section 51104(g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Result in the loss of forestland or conversion of forestland to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

SETTING

Agricultural Resources

According to the California Department of Conservation (DOC) Alameda County Important Farmland 2016 map (2018), which is the most current available, the 21.5-acre area north of Arroyo Las Positas is designated as Grazing Land, which is defined as land on which the existing vegetation is suited to the grazing of livestock, and the area to the south is Urban and Built Up Land. There is no Important Farmland in the vicinity of the project site. The area north of Arroyo Las Positas, currently in unincorporated Alameda County, is zoned Agriculture (see **Figure 3.0-13**). The project site is not subject to a Williamson Act contract (Alameda County 2020).

Forestry Resources

The restaurant project site does not contain any trees and is not currently used for any type of forestry-related use. In addition, the site is not zoned for forestry use.

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DISCUSSION OF IMPACTS

- a) **No Impact.** The DOC designates the project site as Grazing Land. Therefore, the project would not convert Important Farmland to nonagricultural use. The project would have no impact.
- b) **Less Than Significant Impact.** Current Alameda County zoning for the 23-acre project site is Agriculture, with the exception of a small area within the City of Livermore zoned for Highway Service Commercial (**Table 3.0-3** and **Figure 3.0-13**). Upon annexation from the County, the area north of Arroyo Las Positas would be pre-zoned Open Space – Floodplain (OS-F), which would not preclude continuation of existing grazing activities. Therefore, the proposed project would not conflict with existing zoning for agricultural use or a Williamson Act contract. No impact would occur.
- c) **No Impact.** Although the project site is currently undeveloped, it is located in a developed, urbanized area. The proposed project would not result in residential uses adjacent to farmland, nor would it result in or encourage the extension of roadways or public service/utility infrastructure into an agricultural area. Therefore, the project does not involve changes in the existing environment which could result in conversion of Farmland to nonagricultural use. No impact would occur.
- d) **No Impact.** The site is not currently used for any type of forestry-related use and is not zoned for forestry use. Therefore, the project would not conflict with existing zoning for, or cause rezoning of, forestland, timberland, or timberland zoned Timberland Production. No impact would occur.
- e) **No Impact.** The project site is generally situated in an urbanized area. There are no trees on the proposed restaurant site. The 21.5-acre area north of Arroyo Las Positas contains a few trees located along the bank, none of which meet the definition of forestland or timberland as defined by the Public Resources Code, and the area would remain as open space. Therefore, the project would not result in the loss of forestland or conversion of forestland to non-forest use. No impact would occur.

Mitigation Measures

None required.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
4.3 AIR QUALITY. Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
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) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in nonattainment under an applicable federal or state ambient air quality standard?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

SETTING

Air quality in a region is determined by the region's topography, meteorology, and existing air pollutant sources. These factors are discussed below, along with the current regulatory structure that applies to the San Francisco Bay Area Air Basin (SFBAAB), which encompasses the project site, pursuant to the regulatory authority of the Bay Area Air Quality Management District (BAAQMD).

Air Basin Characteristics

San Francisco Bay Area Air Basin

The SFBAAB comprises all of Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, and Santa Clara counties, the southern portion of Sonoma County, and the southwestern portion of Solano County. There are 11 climatological subregions within the SFBAAB. The project site is located in the Livermore Valley climatological subregion of the SFBAAB. This subregion is a sheltered inland valley near the eastern border of the air basin. Air pollution potential is high in the Livermore Valley, especially for photochemical pollutants in summer and fall. High temperatures increase the potential for ozone to build up. The valley not only traps locally generated pollutants but can be the receptor of ozone and ozone precursors from San Francisco, Alameda, Contra Costa, and Santa Clara counties. On days with a northeasterly wind, most common in the early fall, ozone may be carried west from the San Joaquin Valley to the Livermore Valley.

During the winter, the sheltering effect of the valley, its distance from moderating water bodies, and the presence of a strong high-pressure system contribute to the development of strong surface-based temperature inversions. Pollutants such as carbon monoxide and particulate matter, generated by motor vehicles, fireplaces, and agricultural burning, can become

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concentrated. Air pollution problems could intensify because of population growth and increased commuting to and through the subregion (BAAQMD 2017b).

Pollution Potential Related to Emissions

Although air pollution potential is strongly influenced by climate and topography, the air pollution that occurs in a location also depends on the amount of air pollutant emissions in the surrounding area or those that have been transported from more distant places. Air pollutant emissions generally are highest in areas that have high population densities, high motor vehicle use, and/or industrialization. Contaminants created by photochemical processes in the atmosphere, such as ozone, may result in high concentrations many miles downwind from the sources of their precursor chemicals (BAAQMD 2017b).

Criteria Air Pollutants

Air pollutants emitted into the ambient air by stationary and mobile sources are regulated by federal and state law. These regulated air pollutants are known as criteria air pollutants and are categorized into primary and secondary pollutants. Primary air pollutants are those that are emitted directly from sources. Carbon monoxide (CO), reactive organic gases (ROG), nitrogen oxide (NO_x), sulfur dioxide (SO₂), coarse particulate matter (PM₁₀) and fine particulate matter (PM_{2.5}), lead, and fugitive dust are primary air pollutants. Of these, CO, SO₂, PM₁₀, and PM_{2.5} are criteria pollutants. ROG and NO_x are criteria pollutant precursors and go on to form secondary criteria pollutants through chemical and photochemical reactions in the atmosphere. Ozone (O₃), nitrogen dioxide (NO₂), PM₁₀, and PM_{2.5} are the principal secondary pollutants. A description of each of the primary and secondary criteria air pollutants and their known general health effects is presented in **Table 4.3-1**. Specific adverse health effects to individuals or population groups induced by criteria pollutant emissions are highly dependent on a multitude of interconnected variables such as cumulative concentrations, local meteorology and atmospheric conditions, and the number and character of exposed individuals (e.g., age, gender). Criteria pollutant precursors (ROG and NO_x) affect air quality on a regional scale, typically after significant delay and distance from the pollutant source emissions. Health effects related to ozone and NO₂ are, therefore, the product of emissions generated by numerous sources throughout a region. Emissions of criteria pollutants from vehicles traveling to or from the project site (mobile emissions) are distributed nonuniformly in location and time throughout the region, wherever the vehicles may travel.

Ambient Air Quality

As required by the federal Clean Air Act, the US Environmental Protection Agency (EPA) has established health-based National Ambient Air Quality Standards (NAAQS) for the criteria pollutants described above. California has established more stringent California Ambient Air Quality Standards (CAAQS) for the criteria air pollutants listed above through the California Clean Air Act of 1988 (CCAA), and has also established standards for additional pollutants, including sulfates, hydrogen sulfide (H₂S), vinyl chloride and visibility-reducing particles. Air quality standards are designed to protect the health and welfare of the populace with a reasonable margin of safety.

**TABLE 4.3-1
CRITERIA AIR POLLUTANTS – SUMMARY OF COMMON SOURCES AND HEALTH EFFECTS**

Pollutant	Major Man-Made Sources	Human Health & Welfare Effects
Carbon Monoxide (CO)	An odorless, colorless gas formed when carbon in fuel is not burned completely; a component of motor vehicle exhaust.	Reduces the ability of blood to deliver oxygen to vital tissues, effecting the cardiovascular and nervous system. Impairs vision, causes dizziness, and can lead to unconsciousness or death.
Nitrogen Dioxide (NO ₂)	A reddish-brown gas formed during fuel combustion for motor vehicles, energy utilities and industrial sources.	Respiratory irritant; aggravates lung and heart problems. Precursor to ozone and acid rain. Contributes to nutrient overloading which deteriorates water quality. Causes brown discoloration of the atmosphere.
Ozone (O ₃)	Formed by a chemical reaction between reactive organic gases (ROGs) and nitrous oxides (NOx) in the presence of sunlight. Common sources of these precursor pollutants include motor vehicle exhaust, industrial emissions, solvents, paints and landfills.	Irritates and causes inflammation of the mucous membranes and lung airways; causes wheezing, coughing and pain when inhaling deeply; decreases lung capacity; aggravates lung and heart problems. Damages plants; reduces crop yield.
Particulate Matter (PM ₁₀ & PM _{2.5})	Power plants, steel mills, chemical plants, unpaved roads and parking lots, wood-burning stoves and fireplaces, automobiles and others.	Increased respiratory symptoms, such as irritation of the airways, coughing, or difficulty breathing; aggravated asthma; development of chronic bronchitis; irregular heartbeat; nonfatal heart attacks; and premature death in people with heart or lung disease. Impairs visibility (haze).
Sulfur Dioxide (SO ₂)	A colorless, nonflammable gas formed when fuel containing sulfur is burned. Examples are refineries, cement manufacturing, metal processing facilities, locomotives, and ships.	Respiratory irritant. Aggravates lung and heart problems. In the presence of moisture and oxygen, can damage marble, iron and steel; damage crops and natural vegetation. Impairs visibility.

Source: CAPCOA 2018

Areas with air quality that exceed adopted air quality standards are designated as nonattainment areas for the relevant air pollutants, while areas that comply with air quality standards are designated as attainment areas for the relevant air pollutants. The SFBAAB's current attainment status with regard to federal and state ambient air quality standards is summarized in **Table 4.3-2**. The region is nonattainment for federal O₃ and PM_{2.5} standards, as well as for state O₃, PM₁₀, and PM_{2.5} standards (BAAQMD 2017b).

Based on the nonattainment status, O₃, PM₁₀, and PM_{2.5} are the pollutants most intensely affecting the SFBAAB. Ambient concentrations of these pollutants at specific sites will vary due to localized variations in emission sources and climate. Concentrations near the project site can be inferred from ambient air quality measurements conducted by the BAAQMD at nearby air quality monitoring stations. The Livermore-793 Rincon Avenue air quality monitoring station is the closest station to the project site, slightly less than 1 mile to the southwest. **Table 4.3-3** summarizes the published data since 2016 from the Livermore-793 Rincon Avenue air quality monitoring station for each year that monitoring data is provided. There are no monitoring stations in the region with data on PM₁₀ concentrations.

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**TABLE 4.3-2
FEDERAL AND STATE AMBIENT AIR QUALITY ATTAINMENT STATUS FOR THE SAN FRANCISCO BAY AREA AIR BASIN**

Pollutant	Averaging Time	California Standards		National Standards	
		Concentration	Attainment Status	Concentration	Attainment Status
Ozone (O ₃)	8 Hours	0.070 ppm (137 µg/m ³)	N	0.070 ppm	N
	1 Hour	0.09 ppm (180 µg/m ³)	N	No standard	Not applicable
Carbon Monoxide (CO)	8 Hours	9.0 ppm (10 mg/m ³)	A	9 ppm (10 mg/m ³)	A
	1 Hour	20 ppm (23 mg/m ³)	A	35 ppm (40 mg/m ³)	A
Nitrogen Dioxide (NO ₂)	1 Hour	0.18 ppm (339 µg/m ³)	A	0.100 ppm	U
	Annual Arithmetic Mean	0.030 ppm (57 µg/m ³)	U	0.053 ppm (100 µg/m ³)	A
Sulfur Dioxide (SO ₂)	24 Hours	0.04 ppm (105 µg/m ³)	A	0.14 ppm (365 µg/m ³)	A
	1 Hour	0.25 ppm (665 µg/m ³)	A	0.075 ppm (196 µg/m ³)	A
	Annual Arithmetic Mean	No standard	Not applicable	0.030 ppm (80 µg/m ³)	A
Particulate Matter (PM ₁₀)	Annual Arithmetic Mean	20 µg/m ³	N	No standard	Not applicable
	24 Hours	50 µg/m ³	N	150 µg/m ³	U
Particulate Matter – Fine (PM _{2.5})	Annual Arithmetic Mean	12 µg/m ³	N	12 µg/m ³	U/A
	24 Hours	No standard	Not applicable	35 µg/m ³	N
Sulfates	24 Hours	25 µg/m ³	A	No standard	Not applicable
Lead	30-Day Average	1.5 µg/m ³	A	No standard	Not applicable
	Calendar Quarter	No standard	Not applicable	1.5 µg/m ³	A
	Rolling 3-Month Average	No standard	Not applicable	0.15 µg/m ³	U
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m ³)	U	No standard	Not applicable
Vinyl Chloride (chloroethene)	24 Hours	0.01 ppm (26 µg/m ³)	No information available	No standard	Not applicable
Visibility-Reducing Particles	8 Hours (10:00 to 18:00 PST)	0.23 per km extinction coefficient	U	No standard	Not applicable

Source: BAAQMD 2017b

Notes: A = attainment; N = nonattainment; U = unclassified

mg/m³ = milligrams per cubic meter; ppm = parts per million; ppb = parts per billion; µg/m³ = micrograms per cubic meter

TABLE 4.3-3
SUMMARY OF AMBIENT AIR QUALITY DATA

Pollutant Standards	2016	2017	2018
Ozone			
Max 1-hour concentration (ppm) state	0.102	0.109	0.099
Number of days above state 1-hour standard	2	5	2
Max 8-hour concentration (ppm) state	0.085	0.086	0.078
Number of days above state 8-hour standard (0.070 ppm)	6	6	2
Max 8-hour concentration (ppm) federal	0.085	0.086	0.078
Number of days above federal 8-hour 2015 standard (0.070 ppm)	4	6	3
Fine Particulate Matter (PM_{2.5})			
Max 24-hour concentration ($\mu\text{g}/\text{m}^3$) federal	22.3	41.5	172.6
Number of days above federal standard	00	2	14

Source: CARB 2020

Notes: $\mu\text{g}/\text{m}^3$ = micrograms per cubic meter; ppm = parts per million

Air Quality Attainment Plan

The BAAQMD is responsible for preparing plans to attain ambient air quality standards in the SFBAAB. The BAAQMD prepares ozone attainment plans for the national ozone standard and clean air plans for the California standard, both in coordination with the Metropolitan Transportation Commission and the Association of Bay Area Governments (ABAG).

- The BAAQMD adopted its 2017 Clean Air Plan in April 2017. The 2017 Clean Air Plan addresses nonattainment of the state 1-hour ozone standard in the air basin. The Clean Air Plan establishes a program of rules and regulations directed at reducing air pollutant emissions and achieving state (California) and national air quality standards. The Clean Air Plan's pollutant control strategies are based on the latest scientific and technical information and planning assumptions, updated emission inventory methodologies for various source categories, and the latest population growth projections and vehicle miles traveled (VMT) projections for the region. The Clean Air Plan defines a control strategy that the BAAQMD and its partners will implement to (1) reduce emissions and decrease ambient concentrations of harmful pollutants; (2) safeguard public health by reducing exposure to air pollutants that pose the greatest health risk, with an emphasis on protecting the communities most heavily affected by air pollution; and (3) reduce greenhouse gas emissions. The Bay Area 2017 Clean Air Plan addresses four categories of pollutants (BAAQMD 2017a):
 - Ground-level ozone and its key precursors, ROG, and NO_x
 - Particulate matter: primary PM_{2.5}, as well as precursors to secondary PM_{2.5}
 - Toxic air contaminants
 - Greenhouse gases

The Clean Air Plan provides local guidance for the State Implementation Plan, which includes the framework for air quality basins to achieve attainment of the state and federal ambient air quality standards.

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Toxic Air Contaminants

Toxic air contaminants (TACs), or hazardous air pollutants, can result in adverse health effects. The California Air Resources Board (CARB) has designated 244 compounds as TACs. Many TACs are confirmed or suspected carcinogens or are known or suspected to cause birth defects or neurological damage. Secondly, many TACs can be toxic at very low concentrations. For carcinogens, there are no established safe air concentration thresholds.

Industrial facilities and mobile sources can be substantial sources of TACs. However, common urban facilities also produce TAC emissions, such as gasoline stations (benzene), hospitals (ethylene oxide), and dry cleaners (perchloroethylene). Automobile exhaust also contains TACs such as benzene and 1,3-butadiene. In addition, diesel particulate matter (diesel PM) is a TAC that is not a single substance but a complex mixture of hundreds of substances. BAAQMD research indicates that mobile-source emissions of diesel PM, benzene, and 1,3-butadiene represent a substantial portion of human exposure to TACs in the SFBAAB.

Sensitive Receptors

Some land uses are considered more sensitive to air pollution than others because of the types of human receptors present or the activities that occur there. Sensitive population groups include children, the elderly, the acutely ill, and the chronically ill, especially those with cardiorespiratory diseases. Residential areas are sensitive receptors because residents (including children and the elderly) tend to be at home for extended periods, resulting in chronic exposure. Recreational land uses are moderately sensitive to air pollution.

The closest noise-sensitive receptors to the proposed restaurant are the Valley Montessori School approximately 1,300 feet to the southeast and single-family homes and apartments approximately 1,500 feet to south and west.

Odors

The land uses identified by the BAAQMD as sources of odors include wastewater treatment plants, wastewater pumping facilities, sanitary landfills, transfer stations, composting facilities, petroleum refineries, asphalt batch plants, chemical manufacturing and fiberglass manufacturing facilities, painting/coating operations, rendering plants, coffee roasters, food processing facilities, confined animal facilities, feedlots, dairies, green waste and recycling operations, and metal smelting plants. If a source of odors is proposed to be located near existing or planned sensitive receptors, this could have the potential to cause operational-related odor impacts. The BAAQMD recommends screening criteria based on the distance between the receptor and the types of sources known to generate odors. None of these potential odor sources is within the vicinity of the project site.

DISCUSSION OF IMPACTS

- a) **Less Than Significant Impact.** The applicable air quality plan is the BAAQMD 2017 Clean Air Plan. Criteria for determining consistency with the Clean Air Plan are defined by the following indicators:
- Consistency Criterion No. 1: The project supports the primary goals of the Clean Air Plan.

- Consistency Criterion No. 2: The project conforms to applicable control measures from the Clean Air Plan and does not disrupt or hinder the implementation of any Clean Air Plan control measures.

The primary goals to which Consistency Criterion No. 1 refer are compliance with the state (California) and national ambient air quality standards. As shown below, the proposed restaurant project would not exceed the short-term construction standards with the implementation of BCMs and would not violate air quality standards during construction. Similarly, the proposed restaurant project would not exceed the long-term operational standards and would not violate air quality standards during project operation. Thus, the project would be consistent with Criterion No. 1.

Concerning Consistency Criterion No. 2, BAAQMD air quality planning control measures are developed, in part, based on the emissions inventories contained in the Clean Air Plan, which are derived from projected population growth and VMT for the region. These inventories are largely based on the predicted growth identified in regional and community general plans, including associated development projects. Projects that result in an increase in population or employment growth beyond that identified in regional or community plans could result in increases in VMT and subsequently increase mobile source emissions, which would not have been accounted for in the BAAQMD's air quality plans, making the projects inconsistent with the Clean Air Plan.

Proposed General Plan land use designations and zoning changes are summarized in **Table 3.0-3** and illustrated in **Figure 3.0-12** and **Figure 3.0-13**, respectively. Although land use designation and zoning would change, only the 1.5-acre portion to accommodate the proposed restaurant project, which would be zoned Highway Service Commercial, would involve development. The remaining 21.5 acres, currently designated Agriculture to be changed to Open Space through the General Plan amendment, would remain open space. As a local retail-serving use, the proposed project would not increase the population of the city or significantly increase employment in the area and, therefore, would not significantly increase air pollutants over those accounted for in the City General Plan and thus the BAAQMD's Clean Air Plan. Therefore, the project would be consistent with Criterion No. 2.

Therefore, the proposed project would not conflict with or obstruct implementation of the Clean Air Plan, and this impact would be less than significant.

- b) *Less Than Significant Impact.*** The BAAQMD has developed project-level thresholds of significance for air emissions. The project-level threshold for construction is 54 pounds per day (lbs/day) of ROG, NO_x, and/or exhaust-related PM_{2.5}, and no more than 82 lbs/day of exhaust-related PM₁₀. Concerning fugitive dust-related PM_{2.5} and PM₁₀ emissions generated during construction, the BAAQMD requires implementation of its Basic Construction Mitigation Measures (BCMMS) to reduce dust emissions to less than significant levels. During operation, the threshold is 54 lbs/day of ROG, NO_x, and/or exhaust-related PM_{2.5} and no more than 82 lbs/day of exhaust-related PM₁₀ (BAAQMD 2017b).

Construction-Generated Emissions

The proposed project would generate short-term emissions from construction activities such as site grading, asphalt paving, building construction, and architectural coatings (e.g., painting). Common construction emissions and sources include fugitive dust from grading, fuel combustion by mobile heavy-duty diesel- and gasoline-powered equipment, portable auxiliary equipment, and worker commute trips. Uncontrolled dust from

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construction can become a nuisance and potential health hazard to those living and working nearby. Off-road construction equipment is often diesel-powered and can be a substantial source of NO_x emissions, in addition to PM₁₀ and PM_{2.5} emissions. Worker commute trips and architectural coatings are the predominant sources of ROG emissions.

Predicted maximum daily construction-generated emissions for the proposed restaurant project were estimated using the California Emissions Estimator (CalEEMod) Version 2016.3.2 and the results are summarized in **Table 4.3-4**.

As shown in **Table 4.3-4**, all criteria pollutant emissions would remain below their respective thresholds. The BAAQMD recommends implementation of the Basic Construction Mitigation Measures (BCMMs) (see **Table 4.3-5**) to reduce construction fugitive dust impacts to less than significant. Construction projects in Livermore are required to implement BCMMs per General Plan Policy OSC-6.1.P1. Predicted construction-related criteria pollutant and precursor emissions with the BCMMs applied are shown in **Table 4.3-6**.

All construction-related criteria pollutant and precursor emissions would be below the BAAQMD significance thresholds without the need for any additional mitigation beyond the BCMMs. Therefore, construction-generated emissions impacts would be less than significant. Because the proposed project would not exceed significance thresholds, the proposed project would not result in a net increase of emissions that would interfere with regional air quality planning efforts. Therefore, this impact would be considered less than cumulatively considerable.

**TABLE 4.3-4
CONSTRUCTION-RELATED CRITERIA POLLUTANT AND PRECURSOR EMISSIONS – UNMITIGATED
(MAXIMUM POUNDS PER DAY)**

Construction Activities	ROG	NO _x	Exhaust PM ₁₀	Exhaust PM _{2.5}	Fugitive Dust PM ₁₀	Fugitive Dust PM _{2.5}
Maximum daily emissions (all sources)	6.9	27.7	0.8	0.7	5.9	2.9
BAAQMD Potentially Significant Impact Threshold	54	54	82	54	Basic Construction Mitigation Measures	Basic Construction Mitigation Measures
Exceed BAAQMD Threshold?	No	No	No	No	No	No

Source: CalEEMod version 2016.3.2. See Appendix A for assumptions and emission model outputs.

**TABLE 4.3-5
BAAQMD BASIC CONSTRUCTION MITIGATION MEASURES**

BAAQMD Basic Construction Mitigation Measures
1. All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
2. All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
3. 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.
4. All vehicle speeds on unpaved roads shall be limited to 15 mph.
5. All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
6. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of the California Code of Regulations). Clear signage shall be provided for construction workers at all access points.
7. All construction equipment shall be maintained and properly tuned in accordance with manufacturer’s specifications. All equipment shall be checked by a certified visible emissions evaluator.
8. Post a publicly visible sign with the telephone number and person to contact at the lead agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The air district’s phone number shall also be visible to ensure compliance with applicable regulations.

Source: BAAQMD 2017b

**TABLE 4.3-6
CONSTRUCTION-RELATED CRITERIA POLLUTANT AND PRECURSOR EMISSIONS – MITIGATED
(MAXIMUM POUNDS PER DAY)**

Construction Activities	ROG	NO _x	Exhaust PM ₁₀	Exhaust PM _{2.5}	Fugitive Dust PM ₁₀	Fugitive Dust PM _{2.5}
Maximum daily emissions (all sources)	6.9	27.4	0.8	0.7	3.1	1.3
BAAQMD Potentially Significant Impact Threshold	54	54	82	54	Basic Construction Mitigation Measures	Basic Construction Mitigation Measures
Exceed BAAQMD Threshold?	No	No	No	No	No	No

Source: CalEEMod version 2016.3.2 See **Appendix A** for assumptions and emission model outputs.

Notes: All construction projects in Livermore are required to implement the BAAQMD’s Basic Construction Mitigation Measures as part of a required construction-period air pollution control plan per City General Plan Policy OSC-6.1.P1. Emissions estimates account for the quantifiable components of the BAAQMD’s Basic Construction Mitigation Measures, specifically watering unpaved portions of the construction site twice daily, limiting off-road equipment to speeds of 15 mph, and removing dirt track-out on adjacent public roads with a wet power vacuum once daily.

Operational Emissions

The proposed restaurant project would result in long-term operational emissions of criteria air pollutants and ozone precursors (i.e., ROG and NO_x). Restaurant-generated increases in emissions would be predominantly associated with motor vehicle use (including drive-through idling emissions) and energy required for restaurant operation. Long-term

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operational emissions are summarized in **Table 4.3-7**. Use of the trail connection by pedestrians and bicyclists would not generate criteria air pollutant emissions during project operation. The remainder of the 23-acre project site would be open space and would not be publicly accessible and therefore would not be a source of operational emissions.

As shown, all criteria pollutant emissions would remain below BAAQMD significance thresholds. Therefore, emissions from long-term operation would be less than significant and the project would not result in a net increase of emissions that would interfere with regional air quality planning efforts. Therefore, this impact would be less than cumulatively considerable.

**TABLE 4.3-7
LONG-TERM OPERATIONAL EMISSIONS – UNMITIGATED**

Source	Emissions			
	ROG	NO _x	Exhaust PM ₁₀	Exhaust PM _{2.5}
Summer Emissions (Pounds per Day)				
Restaurant	3.2	15.7	0.08	0.07
Winter Emissions (Pounds per Day)				
Restaurant	2.7	15.8	0.08	0.08
<i>Daily Threshold Comparison (Pounds per Day)</i>				
BAAQMD Potentially Significant Impact Threshold (Daily Emissions)	54	54	82	54
Exceed BAAQMD Daily Threshold?	No	No	No	No
Annual Emissions (Tons per Year)				
Restaurant	0.43	2.5	0.01	0.01
<i>Annual Threshold Comparison (Tons per Year)</i>				
BAAQMD Potentially Significant Impact Threshold (Annual Emissions)	10	10	15	10
Exceed BAAQMD Annual Threshold?	No	No	No	No

*Source: CalEEMod version 2016.3.2 and EMFAC 2017 (drive-through idling). See **Appendix A** for assumptions and emission model outputs.*

c) **Less Than Significant Impact.**

Toxic Air Contaminants (TACs) Generated During Construction Activities

The 23-acre undeveloped project site is bordered by I-580 on the north, open space to the west, and commercial development to the south and east. The closest noise-sensitive receptors to the proposed restaurant are the Valley Montessori School approximately 1,300 feet to the southeast and single-family homes and apartments approximately 1,500 feet to the south and west.

Construction would result in the generation of diesel particulate matter (diesel PM) emissions from the use of off-road diesel equipment required for grading and excavation, paving, and other construction activities. The amount to which the receptors are exposed (a function of concentration and duration of exposure) is the primary factor used to determine health risk (i.e., potential exposure to TAC emission levels that exceed applicable standards). Health-related risks associated with diesel-exhaust emissions are primarily linked to long-term exposure and the associated risk of contracting cancer.

The use of diesel-powered construction equipment during site preparation for the proposed restaurant and trail connection would be temporary. There would be no construction activities on the 21.5-acre portion of the project site that is open space and would be designated Open Space under the General Plan amendment (Livermore 2004). The duration of exposure would be short (less than 1 year) and intermittent, and exhaust from construction equipment dissipates rapidly. Current models and methodologies for conducting health risk assessments are associated with longer-term exposure periods of 30, 40, and 70 years, which do not correlate well with the temporary and highly variable nature of construction activities. Additionally, construction activities would occur in an area of less than 2 acres, and the closest sensitive receptors are over 1,000 feet from the site. Construction projects on a site of such size represent less than significant health risk impacts due to (1) limitations on the off-road diesel equipment able to operate and thus a reduced amount of generated diesel PM, (2) the reduced amount of dust-generating ground disturbance possible compared to larger construction sites, and (3) the reduced duration of construction activities compared to the development of larger sites. The proposed restaurant project would implement the BAAQMD BCMMs (see **Table 4.3-5**) as required by General Plan Policy OSC-6.1, and construction would be subject to and would comply with California regulations limiting the idling of heavy-duty construction equipment to no more than 5 minutes, which would further reduce sensitive receptors' exposure to temporary and variable diesel PM emissions. For these reasons and the remote location of the nearest sensitive receptors, diesel PM generated by construction activities would not expose sensitive receptors to substantial amounts of TACs and would be less than significant.

TACs Generated During Project Operation

The BAAQMD CEQA Guidelines (BAAQMD 2017b) recommend a 1,000-foot screening radius around a project site to identify any community health risks resulting from siting a new source of TACs or introducing new sensitive receptors to existing TACs sources. The proposed restaurant operation would not be a stationary source of TAC emissions that would present a health risk. No sensitive receptors are located within 1,000 feet of the project site. The proposed project is a restaurant and neither it nor its customers would be considered a sensitive receptor. Therefore, there would be no impact associated with TACs generated during project operation.

Carbon Monoxide Hot Spots

The primary mobile-source criteria pollutant of local concern is carbon monoxide. Concentrations of CO are a direct function of the number of vehicles, length of delay, and traffic flow conditions. Transport of this criteria pollutant is extremely limited; CO disperses rapidly with distance from the source under normal meteorological conditions. Under certain meteorological conditions, however, CO concentrations close to congested intersections that experience high levels of traffic and elevated background concentrations may reach unhealthy levels, affecting nearby sensitive receptors. Areas of

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high CO concentrations, or “hot spots,” are typically associated with intersections that are projected to operate at unacceptable levels of service during the peak commute hours.²

Based on BAAQMD guidance, projects meeting all of the following screening criteria would be considered to have a less than significant impact on localized carbon monoxide concentrations if:

1. The project is consistent with an applicable congestion management program established by the county congestion management agency for designated roads or highways, regional transportation plans, and local congestion management agency plans.
2. The project traffic would not increase traffic volumes at project-affected intersections to more than 44,000 vehicles per hour.
3. The project traffic would not increase traffic volumes at affected intersections to more than 24,000 vehicles per hour where vertical and/or horizontal mixing is substantially limited (e.g., tunnel, parking garage, bridge underpass, natural or urban street canyon, below-grade roadway).

The project is consistent with the Alameda Congestion Management Program and the City of Livermore General Plan Circulation Element. Consistency is analyzed below in subsection 4.17, Transportation.

The busiest intersection potentially affected by the project is the intersection of Portola Avenue and North Livermore Avenue. According to the transportation impact analysis prepared for the project by Hexagon Transportation Consultants (**Appendix G**), background plus project peak hourly volumes at the intersection would be 3,615 vehicles, substantially less than the screening criteria of 44,000 vehicles per hour. The closest intersection with a potential for limited vertical or horizontal mixing is the highway underpass segment of North Livermore Avenue and I-580. According to the transportation impact analysis, existing plus project peak hourly volumes through the underpass would be 1,328 vehicles, substantially less than the BAAQMD screening criteria of 24,000 vehicles per hour. Therefore, the impact of potential carbon monoxide hotspots would be less than significant.

d) Less Than Significant Impact.

Construction-Related Odors

The BAAQMD does not have a recommended odor threshold for construction activities. Heavy-duty construction equipment would emit odors; however, construction would be short term and equipment exhaust odors, which are common in an urban environment, would dissipate quickly. For these reasons, construction would not create odors that would adversely affect a substantial number of people and this impact would be less than significant.

² Level of service (LOS) is a measure used by traffic engineers to determine the effectiveness of transportation infrastructure. Level of service is most commonly used to analyze intersections by categorizing traffic flow with corresponding safe driving conditions. LOS A is considered the most efficient level of service and LOS F the least efficient.

Operational Odors

The proposed project consists of construction and operation of a fast food restaurant, a trail connection, and parcel annexation with an associated General Plan amendment to designate 21.5 acres as open space. This would not include any of the land uses that have been identified by the BAAQMD as odor sources, nor would it locate receptors near any of these sources. Therefore, the project is not anticipated to create objectionable odors affecting a substantial number of people. This impact would be less than significant.

Mitigation Measures

None required.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
4.4 BIOLOGICAL RESOURCES. Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or US 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 riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal wetlands, etc.), through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input 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 policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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SETTING

A biological resources assessment was prepared by First Carbon Solutions (FCS) to evaluate biological resources impacts of development of the proposed 1.5-acre restaurant project site (FCS 2020, included in **Appendix B**).

The assessment for the 1.5-acre site consisted of a query of available data and literature from local, state, federal, and nongovernmental agencies, and site surveys in 2016 and 2019 to observe site-specific conditions regarding habitat suitability for special-status species and identify any potentially jurisdictional aquatic or hydrological resources on and adjacent to the restaurant site. Unless otherwise noted, the following presents the results of the biological resources assessment specific to the restaurant site.

The approximately 21.5-acre area north of Arroyo Las Positas would remain open space, not publicly accessible, and no improvements are proposed that would result in biological resources impacts in that area.

Vegetation Communities and Land Cover Types

Vegetation present on the project site consists almost entirely of non-native weeds and grasses such as wild oats (*Avena spp.*), ripgut brome (*Bromus diandrus*), yellow star-thistle (*Centaurea solstitialis*), bull thistle (*Cirsium vulgare*), common bedstraw (*Galium aparine*), and milk thistle (*Silybum marianum*) due to high levels of disturbance on the site and its surrounding areas. There is some riparian habitat associated with the undeveloped 21.5-acre open space area north of Arroyo Las Positas. It is separated from the project site by the creek.

Surface Water Features

The restaurant project site was evaluated for the presence of potential wetland features under both State and federal jurisdiction. Although a seasonal freshwater pond to the east and Arroyo Las Positas—a small, intermittent creek to the north—were observed during the field survey, there are no potential wetland features on the site. Field evaluations determined that both the seasonally ponded area and the intermittent creek are not within the project boundary.

Special-Status Species

Plants

A literature search identified occurrences of 46 special-status plant species in the vicinity and region. The restaurant project site is a vacant site located in a highly disturbed area within the urbanized area of the City of Livermore and with ruderal vegetation consisting of non-native grasses and weeds. No special-status plant species were found during the reconnaissance field surveys, and none of these species are expected to be found within the project site because the site lacks suitable habitat and has undergone a high level of disturbance. Congdon's tarplant (*Hemizonia parryi* ssp. *congdonii*), which is a species managed under the East Alameda County Conservation Strategy (EACCS), is not expected to occur on-site due to the presence of non-native grasses, and San Joaquin spearscale (*Extriplex joaquinana*), also managed under the EAACS, has a low potential to occur on-site due to the lack of alkali swales, meadows, and seeps (FCS 2020).

Wildlife

The literature search resulted in 44 special-status wildlife species potentially occurring in the region. The project site is located in a highly disturbed area within the urbanized context of the City of Livermore and with a habitat consisting of non-native grasses and weeds. Although the site is vacant, none of the wildlife species are expected to be found within the project site because of its lack of suitable habitat and high level of disturbance. The project site does not contain suitable nesting and foraging habitat for burrowing owl (*Athene cunicularia*) due to the lack of small mammal burrows. However, burrowing owl is identified as a species managed under the EACCS, as noted below.

Although the site contains non-native grasses and weeds, there is the potential for presence of California red legged frog (CRLF) and the California tiger salamander (CTS), where suitable habitat is present, based on recorded observations near the project area with similar habitat found in the project site. Arroyo Las Positas and the surrounding upland is suitable habitat for the CRLF, which has been known to be up 500 feet or farther from a water source. While uncommon, since vernal pools and other ponded areas are the preferred reproduction habitat, the CTS may use stream margins for reproduction. The CTS is also known to use rodent burrows for hiding cover. The project site has an active California ground squirrel population that has created several burrows suitable for the CTS.

Critical Habitat

A search of the USFWS Critical Habitat Portal revealed that the site does not contain identified critical habitat for any federally listed species.

Nesting Raptors and Migratory Birds

Trees and shrubs located adjacent to the site provide suitable nesting habitat for birds protected under the Migratory Bird Treaty Act (MBTA), and other special-status birds, including raptors, covered by California Fish and Game Code Section 3503.5.

Wildlife Movement Corridors

Wildlife corridors refer to established migration routes commonly used by resident and migratory species for passage from one geographic location to another. Movement corridors may provide favorable locations for wildlife to travel between different habitat areas, such as foraging sites, breeding sites, cover areas, and preferred summer and winter range locations. They may also function as dispersal corridors allowing animals to move between various locations within their range.

The proposed restaurant site is disturbed and surrounded by roadways and urban development on the west, south, and east, which minimizes its potential as a wildlife movement corridor. Arroyo Las Positas to the north and the open space area between the creek and I-580 are potential wildlife movement corridors.

Trees

The City of Livermore Municipal Code Chapter 12.20, Article II (Livermore Tree Preservation Ordinance) establishes the policies, regulations, and standards for the protection of trees on any parcel of land within the City of Livermore. The ordinance defines trees covered under this ordinance as Ancestral Trees, California Native Trees, and Protected Tree, and requires a Tree

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Removal Permit be submitted prior to the removal of any of these types of trees if they are present on a site. There are no trees on the restaurant project site, which is the only area that would be disturbed by project development.

East Alameda County Conservation Strategy

The site is in the area covered by the EACCS, a guidance document for regional conservation and environmental permitting for private and public development projects. Mitigation standards have been adopted by EACCS to include avoidance and minimization measures and a compensation program to offset impacts expected from projects in the study area. To determine mitigation ratios for these species, if necessary, a predetermined mitigation site is necessary as the quality of the mitigation site has a role in the final ratio.

The project site is in Conservation Zone 2 (CZ-2), which is an area identified by the EACCS as largely urbanized. Conservation priorities in CZ-2 include:

- Protection of burrowing owl nesting and foraging habitat.
- Protection of and restoration opportunities in mixed willow riparian scrub along Arroyo del Valle and Arroyo Mocho.
- Protection of and restoration opportunities along Arroyo Seco and Arroyo Mocho to support California red-legged frog and future Central California coast steelhead habitat.
- Surveys for San Joaquin spearscale and protection of extant populations.
- Surveys for Congdon's tarplant and protection of extant populations.
- Protection of vernal pool habitat.

The Arroyo del Valle and Arroyo Mocho components are not applicable to the project site because it is not located near those features. As noted above, spearscale and tarplant are not expected to occur at the site. There is no vernal pool habitat on the site. While burrowing owl has not been observed on the site during surveys, its presence at some point in the future prior to construction cannot be precluded.

DISCUSSION OF IMPACTS

- a) *Less Than Significant Impact With Mitigation Incorporated.*** The proposed project would result in the removal of 1.5 acres of marginal habitat for CRLF and CTS and potentially burrowing owl. Grading and other ground-disturbing activities could harm or kill these species, if present, which would be a potentially significant impact. Trees adjacent to the project site may provide suitable nesting habitat for migratory birds and raptors protected under the MBTA. The removal of vegetation and/or trees during construction activities would result in direct and indirect impacts on nesting birds present on-site or in the project vicinity. Potential nest abandonment and mortality to individuals would be a potentially significant impact. With implementation of mitigation measures **MM BIO-1** through **MM BIO-5**, preconstruction surveys would be performed to determine if species that could be affected are present, and avoidance and/or minimization measures would be implemented to protect species. In addition, standard EACCS construction measures, as required under mitigation measure **MM BIO-6**, would also help minimize potential impacts.

With implementation of these mitigation measures, project impacts would be reduced to a less than significant level.

- b) **No Impact.** There are no riparian habitats or sensitive natural communities located on the 1.5-acre restaurant project site. Riparian habitat on the north side of Arroyo Las Positas would not be affected by project construction. As such, the project would have no impact.
- c) **Less Than Significant Impact.** The approximately 1.5-acre proposed restaurant site currently overlaps the topographic break between the upland areas and the embankment of Arroyo Las Positas. The proposed bank stabilization that would involve the installation of a pier wall would occur on-site and outside the limits of the channel bank (see **Figure 3.0-11**). There would be no modification or filling of wetlands. To ensure construction activities associated with pier wall installation and overall development of the restaurant site do not convey overland stormwater flows containing sediment or other pollutants into the channel, the project will be required to implement best management practices in accordance with a Construction General Permit, as described in subsection 4.10, Hydrology and Water Quality.
- d) **Less Than Significant Impact.** The area north of Arroyo Las Positas, which is undisturbed grassland, and the channel itself could provide for wildlife movement. However, the only area of project disturbance would be the proposed restaurant site, which is south of and above the creek channel. The grassland area to the north would remain as open space. Therefore, the project would not substantially interfere with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, nor would it impede the use of native wildlife nursery sites. Impacts would be less than significant.
- e) **No Impact.** A single California buckeye tree, a native species protected under this ordinance, is located on the north side of Arroyo Las Positas. The north side of the creek would be open space, and no development is proposed in that area. There are no trees south of the creek where the proposed restaurant would be developed. There would be no impact.
- f) **Less Than Significant Impact With Mitigation Incorporated.** The site is in CZ-2 of the EACCS. To ensure compliance with the EACCS CZ-2, a preconstruction burrowing owl survey will be required in accordance with mitigation measure **MM BIO-3** or **MM BIO-4**, depending on when construction occurs. With implementation of **MM BIO-1**, **MM BIO-2**, **MM BIO-3**, and **MM BIO-4**, the project would not conflict with the provisions of the recommendations in the EACCS, and impacts would be less than significant with mitigation. In addition, conditions of approval will require that project construction implement EACCS avoidance and minimization measures to address impacts on focal species that have the potential to occur on-site (CRLF, CTS, burrowing owl), as required under **MM BIO-6**.

Mitigation Measures

- MM BIO-1 California Red-Legged Frog.** The project applicant shall conduct the following measures to avoid impacts on California red-legged frog (CRLF):
- The applicant shall retain a qualified biologist to survey the project site no more than 10 days before the onset of work activities. If any life stage of the CRLF is detected, construction activities shall not be allowed to commence until

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consultation between the United States Fish and Wildlife Service (USFWS) and/or the California Department of Fish and Wildlife (CDFW), the City, and the applicant has occurred to the satisfaction of the USFWS and/or CDFW.

- Before any activities begin on the project, the applicant shall retain a qualified biologist to conduct a Worker's Environmental Awareness Program (WEAP) for all construction personnel. At a minimum, the training will include a description of CRLF and its habitat, the specific measures that are being implemented to conserve the CRLF for the current project, and the boundaries within which the project may be accomplished. Brochures, books, and briefings may be used in the WEAP, provided that a qualified person is on hand to answer any questions.
- The applicant shall limit the number of access routes, size of staging areas, and the total area of the construction activity to the minimum necessary to achieve the project goal. Environmentally Sensitive Areas will be established to confine access routes and construction areas to the minimum area necessary to complete construction and to minimize the impact to CRLF habitat; this goal includes locating access routes and construction areas outside of riparian areas to the maximum extent practicable.

MM BIO-2 California Tiger Salamander. The project applicant shall conduct the following measures to avoid impacts on California tiger salamander (CTS)

- A qualified biologist approved by the US Fish and Wildlife Service (USFWS) and the California Department of Fish and Wildlife (CDFW) will conduct a preconstruction survey for CTS within 48 hours prior to the initiation of any construction activities (i.e., staging, grubbing, clearing, grading) and be present for all initial ground-disturbing activities. All ruts and holes near root structures and burrows shall be inspected prior to and during excavation or removal.
- Contractors performing construction activities shall receive WEAP, which shall include review of environmental laws and avoidance and mitigation measures that must be followed by all personnel to reduce or avoid effects on CTS during construction activities.
- To prevent inadvertent entrapment of CTS during construction, all open holes, sumps, and trenches within the project site shall be inspected by the biological monitor at the beginning of each day. In addition, all trenches, holes, sumps and other excavations with sidewalls deeper than 1:1 (45-degree angle) slope and greater than 6 inches deep shall be covered each night or have an escape ramp of earth or non-slip material. Pipes, culverts, and similar materials shall be stored so as to prevent wildlife species from using these as temporary refuges. These materials shall be inspected each morning for the presence of animals prior to being moved. Any listed species trapped within a trench, hole, etc. is considered "take." If any of these species are observed on the site, then the applicant shall cease work and consult with the USFWS and/or CDFW to determine appropriate mitigation and to obtain any necessary permits (e.g., Incidental Take Permit).

- If necessary, a qualified biologist possessing a valid Endangered Species Act Section 10(a)(1)(A) permit or approved under an active Biological Opinion will be contracted to trap and move CTS to nearby suitable habitat if found inside the fenced area.
- Work shall be avoided within CTS habitat from October 15 (or the first measurable fall rain of 1 inch or greater) to May 1.
- If an unlisted species is detected, it may be moved to a safe location.
- No monofilament plastic will be used for erosion control.
- Prior to issuance of grading permit, the applicant will submit to the City:
- Written USFWS and CDFW approval of the qualified biologist; and
- Biologist's scope of work, which will include the following:
 - Plan and schedule for pre-construction surveys and construction monitoring.
 - Plan and approach for minimizing impacts on CTS as described in MM BIO-2
 - Plan to provide the pre-construction and tailboard worker trainings described in MM BIO-2.
- Prior to the start of ground-disturbing activities, the applicant will submit to the City the biologist's written report summarizing the results of the preconstruction survey.

MM BIO-3

Burrowing Owl – Breeding Season. The project applicant shall conduct the following measures to avoid impacts on burrowing owl during the breeding season (February 1 through August 31):

- A qualified biologist shall conduct a preconstruction survey for burrowing owl in accordance with the *Staff Report on Burrowing Owl Mitigation* (CDFG 2012) no more than 14 days prior to the initiation of construction-related ground disturbance activity (i.e., staging, clearing, grading) if this activity occurs during the breeding season (February 1 through August 31). A final survey shall be conducted within 24 hours prior to any ground-disturbing activities.
- If owls are discovered after February 1, the owls must be left on-site and a 250-foot buffer established until September 1.
- If a burrowing owl is found on the site and no nesting has begun, the qualified biologist shall consult with CDFW to negotiate nest exclusion doors or avoidance buffers.

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- The results of the survey and on-site monitoring shall be reported to the City.

MM BIO-4 Burrowing Owl – Nonbreeding Season. The project applicant shall conduct the following measures to minimize impacts on burrowing owl during the nonbreeding season (September 1 through January 31):

- A qualified biologist shall determine if burrowing owls are present at the site during the nonbreeding season. If a burrowing owl is found present on the project site and no nesting has begun, the CDFW shall be consulted to negotiate nest exclusion doors or avoidance buffers. If owls are present, no disturbance shall occur within 50 meters (approximately 160 feet) of occupied burrows.
- If an effective exclusion area for burrowing owls cannot be established, an experienced burrowing owl biologist will develop a site-specific plan in consultation with CDFW to avoid impacts on owls.
- The results of the survey shall be reported to the City.

MM BIO-5 Nesting Birds. If clearing and/or construction activities will occur during the raptor or migratory bird nesting season (February 15–August 15), the project applicant and/or contractor shall employ a qualified biologist to conduct preconstruction surveys for nesting birds up to 14 days before initiation of construction activities. The qualified biologist shall survey the construction zone and a 500-foot buffer surrounding the construction zone to determine whether the activities taking place have the potential to disturb or otherwise harm nesting birds. Surveys shall be repeated if project activities are suspended or delayed for more than 15 days during the nesting season.

If active nest(s) are identified during the preconstruction survey, the qualified biologist shall establish a 100-foot no-activity setback for migratory bird nests and a 250-foot setback for raptor nests. No ground disturbance shall occur within the no-activity setback until the nest is deemed inactive by the qualified biologist.

MM BIO-6 EACCS Measures. The following EACCS avoidance and minimization measures shall be implemented during construction:

- Employees and contractors performing construction activities will receive environmental sensitivity training. Training will include review of environmental laws and avoidance and minimization measures (AMMs) that must be followed by all personnel to reduce or avoid effects on covered species during construction activities.
- Environmental tailboard trainings will take place on an as-needed basis in the field. The environmental tailboard trainings will include a brief review of the biology of the covered species and guidelines that must be followed by all personnel to reduce or avoid negative effects to these species during construction activities. Directors, managers, superintendents, and the crew foremen and forewomen will be responsible for ensuring that crewmembers comply with the guidelines.

- Contracts with contractors, construction management firms, and subcontractors will obligate all contractors to comply with these requirements [and] AMMs.
- The following will not be allowed at or near the work site for covered activities: trash dumping, firearms, open fires (such as barbecues) not required by the activity, hunting, and pets (except for safety in remote locations).
- Vehicles and equipment will be parked on pavement, existing roads, and previously disturbed areas to the extent practicable.
- Off-road vehicle travel will be minimized.
- Vehicles will not exceed a speed limit of 15 mph on unpaved roads within natural land-cover types, or during off-road travel.
- Vehicles will be washed only at approved areas. No washing of vehicles will occur at job sites.
- To discourage the introduction and establishment of invasive plant species, seed mixtures/straw used within natural vegetation will be either rice straw or weed-free straw.
- Pipes, culverts, and similar materials greater than 4 inches in diameter will be stored so as to prevent covered wildlife species from using these as temporary refuges, and these materials will be inspected each morning for the presence of animals prior to being moved.
- Plastic monofilament netting (erosion control matting) or similar material containing netting will not be used at the project. Acceptable substitutes include coconut matting or tackified hydroseeding compounds.
- Stockpiling of material will occur such that direct effects to covered species are avoided.
- Grading will be restricted to the minimum area necessary.
- Trenches will be backfilled as soon as possible. Open trenches will be searched each day prior to construction to ensure that no covered species are trapped. Earthen escape ramps will be installed at intervals prescribed by a qualified biologist.

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	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
4.5 CULTURAL RESOURCES. Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in Section 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 Section 15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The setting and impact analysis in this subsection were prepared by Michael Baker International cultural resources staff and based on a records search conducted at the Northwest Information Center (NWIC), map review, and field survey of the 1.5-acre restaurant project site.

SETTING

Concepts and Terminology for Identification of Cultural Resources

Cultural resources include historical resources and archaeological resources (as defined in Public Resources Code Section 15064.5). Cultural resources are any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California. Generally, a resource is considered by the lead agency to be historically significant if the resource meets the criteria for listing in the California Register of Historical Resources (California Register) (California Code of Regulations Title 14(3) Section 15064.5(a)(3)).

CULTURAL RESOURCES IDENTIFICATION EFFORTS

Records Search

To determine the presence of previously identified cultural resources, Michael Baker International staff conducted a records search (NWIC File # 16-1511) of the restaurant project site with a quarter-mile search radius on April 3, 2017 (project study area). The NWIC, as part of the California Historical Resources Information System, California State University, Sonoma, an affiliate of the State of California Office of Historic Preservation (OHP), is the official state repository of cultural resource records and reports for Alameda County. As part of the records search, the following federal and state inventories were reviewed:

- California Inventory of Historic Resources (OHP 1976);
- California Points of Historical Interest (OHP 1992);
- California Historical Landmarks (OHP 1996); and

- Archaeological Determinations of Eligibility for Alameda County (OHP 2012a). The directory includes National Register of Historic Places (National Register) and California Register eligibility determinations for archaeological resources in Alameda County.
- Directory of Properties in the Historic Property Data File for Alameda County (OHP 2012b). The directory includes the listings of the National Register, National Historic Landmarks, California Register, California Historical Landmarks, and California Points of Historical Interest.

Results

No cultural resources were identified within the project study area. One cultural resource was identified within a quarter-mile of the project study area.

Robert Livermore Adobe Site (P-01-002108/CA-ALA-430H). This site includes a 50-foot by 75-foot flat terrace. No remains of the adobe house are visible aboveground. Artifacts discovered from a six-hole auger program and surface survey included glass and ceramic sherds, bone, square nails, metal, and brick. Indian artifacts located included chert flake, agate flake, and a mortar fragment (O'Neal 1981a). The site has been developed since 1981.

Five cultural resources studies were identified that covered approximately 40 percent of the project area. No resources were identified within these studies; however, archaeological sensitivity had been previously identified. An overview of each study is presented below.

- 1570 Portola Avenue. The letter report summarized the methods and results of a records search and field survey and intensive archaeological survey of approximately 52 acres. No visible surface indications of archeological materials were identified; however, the area was determined to be archaeologically sensitive due to its vicinity to prehistoric archaeological site 4-ALA-47, located approximately one-half mile northwest of the project site (Miller 1976).
- Anderson Tract Development Area. The letter report summarized the methods and results of a records search, field survey, and interested parties consultation. The report also summarizes previous cultural resource concerns related to the Robert Livermore Adobe Site (P-01-002108/CA-ALA-430H) and prehistoric archaeological materials on both the north and south banks of Arroyo Las Positas. The concerns had been documented in public comments and an archaeological excavation commissioned by the Livermore Heritage Guild during 1981 and 1982 EIRs for the Anderson Tract Development. The field survey identified no archaeological materials; however, the report recommended that further testing be conducted at Anderson Tract due to high historic-period and prehistoric archaeological sensitivity of the area, especially along Arroyo Las Positas (Holman 1984).
- I-580 Eastbound HOV Lane Project: Hacienda Drive to East of Greenville Road. The Historic Property Survey Report included an Archaeological Survey Report and Historic Resources Evaluation Report required to meet Section 106 requirements for a roadway improvement project along an 11-mile segment of I-580. Cultural resource identification efforts included a field survey, Native American consultation, interested parties consultation, records search, and archival research. No cultural resources were identified within the study area (Parsons 2006). An Archaeological Survey Report (addendum) required to meet Section 106 requirements for a roadway improvement project along an 11-mile segment of I-580

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surveyed an additional six areas along the roadway; one additional survey extended through the study area. No cultural resources were identified in the study area (Byrd 2009).

- I-580 Westbound HOV Lane: Greenville Road to San Ramon/Foothills Roads. The Historic Property Survey Report included an Archaeological Survey Report required to meet Section 106 requirements for a roadway improvement project along a 13-mile segment of I-580. Cultural resource identification efforts included a field survey, Native American consultation, interested parties consultation, records search, and archival research. No cultural resources were identified with the area of potential effects (Byrd 2008).

Five cultural resources studies were completed within a quarter-mile radius of the 1.5-acre restaurant project site: *Robert Livermore Adobe Site* (O'Neal 1981b); *Portola Avenue/Highway 580 Development Archaeology Report* (Holman 1985); *Cultural Resource Assessment, Livermore Carrier Annex* (Stoyka 1991); *A Cultural Resources Study for the North Livermore Master Plan/Specific Plan, Environmental Impact Report* (Wiberg, Dean, and Holman 1998); and *A Cultural and Paleontological Resource Study for the Arroyo Las Positas Trail Extension Project* (Jones and Matzen 2005).

Map Research

Michael Baker International staff conducted a map search of the project area to determine the presence of cultural resources. The following maps were reviewed: *Official Map of the County of Alameda, California* (Higley 1857); *Township 3 South, Range 3 East, Mount Diablo Meridian* (BLM 1871); *Pleasanton, Calif. 1:62,500 scale topographic quadrangle* (USGS 1906); *Pleasanton, Calif. 1:62,500 scale topographic quadrangle* (USGS 1941); Aerial Single Frame Photo ID: 1JL0000020032 (USGS 1949); *Livermore, Calif. 7.5-minute topographic quadrangle* (USGS 1953); *Livermore, Calif. 7.5-minute topographic quadrangle* (USGS 1961); and Aerial Single Frame Photo ID: 1VBZJ00060198 (USGS 1968).

Results

The results of the map search indicate that the restaurant project site was undeveloped from 1857 until present. The project site was once part of Rancho Las Positas. No features are depicted on historic maps or aerials until 1949 when a building is depicted adjacent to Arroyo Las Positas. The building is not depicted in later maps or aerials. Also, in 1949, the project site appears disturbed by the construction of I-580. The project area appears to have been used for ranching purposes such as grazing (Higley 1857; BLM 1871; USGS 1906, 1941, 1949, 1953, 1961, 1968).

Field Survey

On July 10, 2017, the project site was surveyed in east/west 10-meter transects. Overall coverage of the property was approximately 40 percent, and surface visibility was less than 10 percent due to thick matted grass and tall thistle obscuring the ground surface. All rodent back-dirt and the south bank of Arroyo Las Positas were investigated for cultural materials. No cultural resources were observed within the project site. A clam shell fragment was observed just outside of the project site within the adjacent Jack in the Box restaurant landscaping.

Ethnography

The project area was formerly the territory of the Costanoan within the Ohlone language group. The basic Ohlone social unit was the patrilineal family household. Households grouped together to form villages, and villages combined to form tribelets. There were approximately 40 Ohlone tribelets who traded goods such as obsidian, shell beads, and baskets; participated in ceremonial

and religious activities together; intermarried; and maintained extensive reciprocal obligations to one another involving resource collection (Levy 1978: 492; Milliken 1995).

For the Ohlone, acorns served as a dietary staple. Acorns were knocked from trees with poles, leached to remove bitter tannins, and eaten as mush or bread. The Ohlone used a range of other plant resources including buckeye, California laurel, elderberries, strawberries, manzanita berries, gooseberries, toyon berries, wild grapes, wild onion, cattail, amole, wild carrots, clover, and an herb called chuchupate. The Ohlone also hunted black-tailed deer, Roosevelt elk, antelope, and marine mammals; smaller mammals such as dog, skunk, raccoon, rabbit, and squirrel; birds, including geese and ducks; and fish such as salmon, sturgeon, and mollusks (Levy 1978: 492).

The Ohlone lived in dome-shaped shelters thatched with ferns, tule, grass, and carrizo. The Ohlone also built small sweathouses dug into creek banks and roofed with brush, and circular dance areas enclosed by fences woven from brush or laurel branches. Basket making was generally done by women who crafted cooking and storage containers. Tightly woven baskets, decorated with feathers or shell, were valued exchange items (Levy 1978: 492; Margolin 1978: 121–122).

Animal bones, teeth, beaks, and claws were used to make awls, pins, knives, and scrapers. Pelts and feathers were used to make clothing and bedding, and sinews were used for cordage and bow strings. Feathers, bone, and shells were crafted into ornaments (Levy 1978: 492).

By the late eighteenth century, Spanish settlers established the mission system in Northern California. Mission records indicate that the first tribelet arrived at Mission San Francisco in the fall of 1794. Following the secularization of the missions in 1834, many Ohlone worked as manual laborers on ranchos (Milliken 1995: 243; Levy 1978: 486).

SUMMARY OF FINDINGS

Historical Resources

Research revealed that no cultural resources are located within the project area. One cultural resource, Robert Livermore Adobe Site (P-01-002108/CA-ALA-430H), was located within a quarter mile of the project area, but was destroyed after 1984 as part of residential development. The project will have no impact to historical resources.

Archaeological Resources

No archaeological resources were identified during records searches or field surveys within the project area. However, previous archaeological investigations had concluded the surrounding area was sensitive for prehistoric and historic-period archaeological resources, especially along the bank of Arroyo Las Positas.

DISCUSSION OF IMPACTS

- a) **No Impact.** As discussed above, no historical resources will be directly or indirectly impacted by the project. Therefore, no impact would occur.
- b, c) **Less Than Significant Impact With Mitigation Incorporated.** No archaeological resources or human remains are known to be within the project area. However, the project includes ground-disturbing activities that could result in the unanticipated or accidental discovery of archeological deposits or human remains. Implementation of mitigation measure **MM CUL-1** would reduce impacts to less than significant by ensuring that provisions are in place

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to protect prehistoric or historical archaeological deposits encountered during construction. The mitigation requires impacts on such resources to be avoided or further investigation to be conducted to offset the loss of scientifically consequential information that would occur if avoidance is not possible.

Implementation of mitigation measure **MM CUL-2** would reduce impacts to less than significant by ensuring that human remains encountered during project activities would be treated in a manner consistent with state law, and if Native American, treatment would occur through coordination with descendant communities to ensure that the traditional and cultural values of said communities are incorporated in the decision-making process concerning the disposition of human remains that cannot be avoided.

Mitigation Measures

MM CUL-1 **Treatment of Previously Unidentified Archaeological Deposits.** If prehistoric or historical archaeological deposits are discovered during construction, the project applicant and/or contractor shall stop all work within 50 feet of the discovery and an archaeologist shall assess the situation, consult with agencies as appropriate, and make recommendations regarding the treatment of the discovery. The project applicant and/or contractor shall avoid impacts to archaeological deposits to the extent feasible, but if such impacts cannot be avoided, the deposits shall be evaluated for their California Register eligibility. If the deposit is not eligible for the California Register, no further protection of the finds is necessary. If the deposits are California Register eligible, they shall be protected from project-related impacts, or such impacts shall be mitigated. Mitigation may consist of but is not necessarily limited to systematic recovery and analysis of archaeological deposits, recording the resource, preparation of a report of findings, and accessioning recovered archaeological materials at an appropriate curation facility. Public educational outreach may also be appropriate.

MM CUL-2 **Treatment of Previously Unidentified Human Remains.** The project applicant and/or contractor shall treat any human remains encountered during ground-disturbing activities in accordance with California Health and Safety Code Section 7050.5. There shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the County coroner has determined the manner and cause of any death, and the recommendations concerning the treatment and disposition of the human remains have been made to the person responsible for the excavation or to his or her authorized representative. At the same time, an archaeologist shall be contacted to assess the situation and consult with agencies as appropriate. Project personnel/construction workers shall not collect or move any human remains and associated materials. If the human remains are of Native American origin, the remains will be treated in concordance with Public Resources Code Section 5097.98. To start this process, the coroner must notify the Native American Heritage Commission within 24 hours of this identification. The Native American Heritage Commission will identify a Native American most likely descendant to inspect the site and provide recommendations for the proper treatment of the remains and associated grave goods.

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
4.6 ENERGY. Would the project:				
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

CHECKLIST DISCUSSION

a, b) Less Than Significant Impact. The project would not consume energy in a wasteful, inefficient, or unnecessary manner. The project would comply with the 2019 California Green Building Standards Code, also known as the CALGreen Code (California Code of Regulations Title 24, Part 11), and the Building Energy Efficiency Standards. The CALGreen Code improves building design and encourages sustainable construction and operation, and includes the following measures:

- Compliance with regulations related to future installation of electric vehicle charging infrastructure;
- Reduced indoor water use through the establishment of maximum fixture water use rates;
- Outdoor landscaping must comply with the California Department of Water Resources' Model Water Efficient Landscape Ordinance (MWEL0), or a local ordinance, whichever is more stringent, to reduce outdoor water use;
- Diversion of 65 percent of construction and demolition waste from landfills;
- Mandatory use of low-pollutant-emitting interior finish materials such as paints, carpet, vinyl flooring, and particle board; and
- The 2019 Building Energy Efficiency Standards require high-efficiency lighting, water heating systems, and walls.

Construction of the project would require consumption of fossil fuels, including gasoline and diesel fuel for construction worker vehicle trips, delivery trucks, soil hauling, and operation of construction equipment. In addition, diesel-fueled portable generators may be needed to meet electricity demands when power from the electrical grid is not available. However, all construction equipment is regulated by CARB, which limits idling and the use of older, less fuel-efficient equipment. By complying with California law related to energy conservation and fuel efficiency, the project would minimize energy consumption. Therefore, construction would not consume energy in a manner that would be wasteful, inefficient, or unnecessary.

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For site operation, electricity and natural gas would be provided by PG&E. Energy use would be typical of fast food restaurant land uses in the area. Electricity and natural gas would be used for heating, ventilation, and air conditioning (HVAC), lighting, site equipment, and refrigeration. Site buildings and equipment would be required to comply with the most recent CALGreen Code and Building Energy Efficiency Standards, ensuring that the site's energy use would not be wasteful, inefficient, or unnecessary. In addition, electricity supplied to the project by PG&E would comply with the state's Renewables Portfolio Standard, which requires investor-owned utilities, electric service providers, and community choice aggregators to increase procurement from eligible renewable energy sources to 33 percent by 2020 and to 60 percent by 2030. Thus, a portion of the energy consumed during project operation would originate from renewable sources. Therefore, the project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. The project's impact on energy consumption and planning would be less than significant.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
4.7 GEOLOGY AND SOILS. Would the project:				
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death, involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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, 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 Section 1803.5.3 of the 2019 California Building Code, creating substantial direct or indirect risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
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 type="checkbox"/>	<input checked="" type="checkbox"/>
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The setting and impact analysis in this subsection incorporate information from geotechnical investigation for the site prepared by Giles Engineering Associates (2017) and subsequent studies prepared by ENGEO in 2019 and 2020. The reports are attached as **Appendix C** to this Initial Study.

SETTING

Seismicity and Seismic Hazards

The project site is located in a highly seismic region of California within the influence of several fault systems. However, no known faults cross the site, and it does not lie within the boundaries of an earthquake fault zone as defined by the State of California in the Alquist-Priolo Earthquake Fault Zoning Act. The Mt. Diablo Thrust, Greenville Connected, and Calaveras faults are the closest known active faults and are located approximately 3.5, 4.2, and 8.1 miles, respectively, from the site with an anticipated maximum moment magnitude of 6.70, 7.00, and 7.03, respectively (Giles Engineering Associates 2017).

Liquefaction

Liquefaction occurs when loose, water-saturated sediments lose strength and fail during strong ground shaking. Liquefaction is defined as the transformation of granular material from a solid state into a liquefied state as a consequence of increased pore-water pressure.

According to the Seismic Hazard Zones map for the Livermore Quadrangle, published by California Geological Survey (CGS), the site is located within an area that has been designated by the State Geologist as a "zone of required investigation" due to the potential for earthquake-induced liquefaction. Therefore, a site liquefaction evaluation was performed as part of the geotechnical engineering analysis conducted for the project. The geotechnical evaluation concluded that the site soils are not potentially susceptible to soil liquefaction (Giles Engineering Associates 2017).

Topography and Soils

Elevations within the site range from approximately 457.1 feet above mean sea level along the westerly end of the site to approximately 460.4 feet near the northeast corner of the site. Soils encountered within test borings generally consisted of stiff sandy clay and silty clay, and medium dense to very dense silty sand, clayey sand and sand with gravel and possible cobbles at deeper depths. The upper 10 feet of the soils were generally of finer soils (clay) and below 10 feet the soils

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were generally granular (sand and gravel with possible cobbles) (Giles Engineering Associates 2017).

DISCUSSION OF IMPACTS

- a) **i. No Impact.** Because no active faults are known to cross the project site, the risk of earthquake-induced ground rupture is remote. Furthermore, the project site is not located in an Alquist-Priolo Earthquake Fault Zone. Therefore, the project would not expose people or structures to substantial adverse effects, including the risk of loss, injury, or death, involving rupture of a known earthquake fault. There would be no impact.
- ii. Less Than Significant Impact.** Earthquake-related ground shaking can be expected during the design life of project structures from earthquakes along active faults in the region. Therefore, proposed structures must be designed to withstand anticipated ground accelerations. The State of California provides minimum standards for structural design and site development through the California Building Code (CBC) (California Code of Regulations, Title 24, Part 2). All buildings constructed in the city would be required to comply with the CBC, which incorporates design criteria for seismic loading and other geologic hazards, design criteria for geologically induced loading that govern sizing of structural members, and calculation methods to assist in the design process. Thus, while shaking impacts would be potentially damaging, structural damage would be reduced due to CBC criteria that recognize this potential. The CBC contains provisions for buildings to structurally survive an earthquake without collapsing and includes measures such as anchoring to the foundation and structural frame design. Impacts would be less than significant.
- iii. Less Than Significant Impact.** Liquefaction occurs when loose sand and silt that is saturated with water behaves like a liquid when shaken by an earthquake. Liquefaction can result in various types of ground failure.

The site is located in an area designated by the State Geologist as a “zone of required investigation,” indicating a potential for liquefaction. However, the site-specific liquefaction evaluation completed for the project determined that site soils are not potentially susceptible to soil liquefaction (Giles Engineering Associates 2017, p. 12). Based on subsurface exploration, laboratory testing and the seismic designation for the project site, Giles Engineering Associates (2017, p. 9) concluded that seismic-related ground failure (including landsliding, ground lurching and shallow ground rupture) is unlikely to occur at the site. Implementation of the recommendations provided in the geotechnical engineering analysis report, which would be confirmed by City staff during plan review and site inspection, would ensure that the proposed development is designed and constructed to withstand anticipated seismic forces and minimize the potential for seismic-induced ground failure.

- iv. No Impact.** The project site is flat in an area that is not susceptible to landslide hazard.
- b) **Less Than Significant Impact.** Project construction activities, including land clearing, grading, and excavation, would disturb on-site soils, temporarily exposing them to wind and water erosion. Upon completion of construction, the site would be covered with impervious surfaces and landscaping, so there would be no permanent erosion or topsoil loss impacts.

Any construction activity affecting 1 acre or more is required to comply with the Construction General Permit (Water Quality No. 2009-0009-DWQ, as amended by Order No. 2010-0014-DWQ) implemented and enforced by the Regional Water Quality Control Board, San Francisco Bay Region. The Construction General Permit would apply to the proposed project and requires the project applicant to prepare and submit a stormwater pollution prevention plan (SWPPP). While the purpose of the SWPPP is to reduce construction effects on receiving water quality, the erosion control best management practices (BMPs) would be effective in reducing wind and water erosion potential during construction. City approval of the SWPPP would be required prior to issuance of a grading permit. Examples of construction BMPs to reduce erosion could consist of using temporary mulching, seeding, or other suitable stabilization measures to protect uncovered soils; performing clearing and earth-moving activities only during dry weather; and stabilizing the single access point during construction, as shown on the preliminary erosion control plan prepared by the project applicant. Erosion control is also regulated by the San Francisco Bay Regional Water Quality Control Board Municipal Regional Permit (MRP) through the requirement of an erosion control plan and permanent site stormwater treatment and detention devices.

Additionally, the project would be required to comply with City of Livermore Municipal Code Chapter 13.45, Stormwater Management and Control Program, which establishes requirements for notification of intent and compliance with the General Construction Permit and BMPs as described above.

Compliance with City, Construction General Permit, and MRP requirements would reduce the potential for substantial erosion or topsoil loss during construction. The impact would be less than significant.

- c) **Less Than Significant Impact.** The northern boundary of the restaurant project site is along the top of the bank of Arroyo Las Positas. A buried pier wall would be installed along the north side of the site to ensure stability of the south bank of Arroyo Las Positas on the north side of the restaurant site because the building is proposed within the creek setback area and the bank may be susceptible to natural erosion (ENGEO 2019a, 2019b). The pier wall would consist of concrete piers installed parallel to the creek bank and perpendicular to the creek at the location shown in **Figure 3.10-11**. There would be a minimum 8-foot offset from the back of the buried piers to the proposed restaurant and drive-through. The proposed design is based on a creek scour erosion evaluation (ENGEO 2019c), which determined there is the potential for scour hazard to ultimately develop along the creek bank at the location where the pier wall would be installed, which would occur even if the proposed project were not constructed. However, in the professional opinion of the geotechnical consultant, the proposed pier wall design would allow for more than a 50-year design life. As such, the potential for creek bank erosion to affect the stability of the pier wall (and the restaurant project for which the pier wall is incorporated into project design) is not expected to result in unstable soil conditions. As explained in subsection 4.10, Hydrology and Water Quality, project runoff would be managed in on-site bioretention systems that would be sloped so that runoff is directed away from the creek bank, and runoff from the project site would not be greater than existing conditions. As a result, the proposed project would not cause or exacerbate erosion hazards, and the impact would be less than significant.
- d) **Less Than Significant Impact.** Site soils consist of clay, which may be expansive. Giles Engineering Associates (2017) performed Expansive Index (EI) testing on soil samples collected from the site and identified a medium expansion potential (EI=54). Standard

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methods for mitigating potential expansive soil hazards are identified in the geotechnical report (ENGE0 2019c). Such measures include constructing the upper 18 inches of the building pad with low-expansive soil fill or treating the upper 18 inches with lime. With implementation of the recommendations in the project's geotechnical report, which would be required as a condition of approval, the impact would be less than significant.

- e) **No Impact.** The project would be served by a public sewer system. Therefore, no septic tanks or alternative wastewater disposal systems would be installed for the project. The project would have no impact.
- f) **Less Than Significant Impact with Mitigation Incorporated.** Site soils consist of clay soils associated with recent fluvial (stream) deposition, which would be unlikely to contain paleontological resources. However, in the event resources are discovered during construction, the City would require mitigation measure **MM GEO-1**, which includes standard procedures. These measures would reduce impacts to less than significant.

Mitigation Measures

MM GEO-1 Treatment of Previously Unidentified Paleontological Resources. If paleontological resources are discovered during construction, all work within 25 feet of the discovery will be redirected and the paleontologist will assess the situation, consult with the City of Livermore, and make recommendations regarding the treatment of the discovery. Impacts on paleontological resources should be avoided by project activities, but if such impacts cannot be avoided, the deposits will be evaluated for their significance. If the discovery is significant, it will be protected from construction or recovered. This may include systematic recovery and analysis and curation of paleontological resources.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
4.8 GREENHOUSE GASES. Would the project:				
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"/>

SETTING

Greenhouse gases (GHGs) are released as by-products of fossil fuel combustion, waste disposal, energy use, land use changes, and other human activities as well as many natural processes. These greenhouse gases, such as carbon dioxide (CO₂), methane (CH₄), and nitrous oxide (N₂O), form a layer around the earth that allows solar energy to pass through but traps heat at the surface, preventing its escape into space.

Each GHG differs in its ability to absorb heat in the atmosphere based on the lifetime, or persistence, of the gas molecule in the atmosphere. Estimates of GHG emissions are commonly presented in carbon dioxide equivalents (CO₂e), which weighs each gas by its global warming potential (GWP). Expressing GHG emissions in CO₂e takes the contribution of all GHG emissions to the greenhouse effect and converts them to a single unit equivalent to the effect that would occur if only CO₂ were being emitted.

The City of Livermore has adopted a Climate Action Plan (CAP) to outline strategies and activities the City and community can take to reduce GHG emissions. The Livermore CAP is a strategic planning document that identifies sources of GHG emissions in the city, presents current and future emissions estimates, identifies a GHG reduction target for future years, and presents strategic programs, policies, and projects to reduce emissions from the energy, transportation, land use, water use, and waste sectors (Livermore 2012a). These strategies are referred to as "reduction measures" in the CAP. Implementation of the CAP is intended to support statewide efforts under the California Global Warming Solutions Act (Assembly Bill [AB] 32) to reduce GHG emissions in California to 1990 levels by 2020.

DISCUSSION OF IMPACTS

a) *Less Than Significant Impact.* GHG emissions contribute, on a cumulative basis, to significant adverse environmental impacts. While no single project could generate enough GHG emissions to noticeably change the global average temperature, the combination of GHG emissions from past, present, and future projects contributes substantially to the phenomenon of global climate change and its associated environmental impacts, and, as such are addressed only as a cumulative impact. The BAAQMD CEQA Guidelines provide three criteria for evaluating the impact of a project's operational GHG emissions (BAAQMD 2017b). An impact would not be cumulatively considerable and, therefore, less than significant if the proposed project would meet one of the following criteria:

- Meet all screening criteria for the land use type listed in Table 3-1 of the BAAQMD CEQA Guidelines (BAAQMD 2017b); or
- Be located in a community with an adopted qualified GHG Reduction Strategy and the project identifies and implements all applicable feasible measures and policies from the strategy; or
- Have estimated GHG operational emissions that are quantified and fall below the AB 32 threshold of significance of 1,100 metric tons of CO₂e per year, adjusted to account for further reductions required under SB 32.³ The BAAQMD has not adopted guidance or revised thresholds to account for GHG reduction targets beyond 2020. Accordingly, a threshold reduced by 4.98 percent for each year between 2020 and 2030 would meet the mandates of SB 32. The first full year of operation for the project is anticipated to be 2022. Therefore, a threshold 9.6 percent below the BAAQMD AB 32 threshold of 1,100 metric tons of CO₂e per year (or 993 metric tons per year) is used in this analysis.

³ BAAQMD thresholds were developed based on substantial evidence that such thresholds represent quantitative levels of GHG emissions, compliance with which means that the environmental impact of the GHG emissions would normally not be cumulatively considerable under CEQA (BAAQMD 2017b).

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The proposed project's development of an approximately 4,740-square-foot fast food restaurant with a drive-through exceeds the Operational GHG Screening Size of 1,000 square feet listed in Table 3.1 of the BAAQMD CEQA Guidelines. Therefore, emissions estimates for the proposed restaurant project were quantified using the California Emissions Estimator (CalEEMod) Version 2106.3.2. The proposed restaurant project's GHG inventory include short-term emissions from construction activities, primarily emissions from equipment exhaust, and long-term regional emissions associated with new vehicular trips (including drive-through vehicle idling) and indirect source emissions, such as electricity usage for lighting, and electricity and natural gas use for heating and cooking. Construction of the proposed trail connection within the project site is assumed in the site preparation emissions estimates. Use of the trail by pedestrians and bicyclists would not generate GHG emissions during project operation. The remainder of the 23-acre project site would be open space and would not be publicly accessible and therefore would not be a source of GHG emissions that requires quantification.

Construction GHG Emissions

The BAAQMD CEQA Guidelines do not specify a GHG emissions threshold for construction-related activities. However, results are presented here as recommended by the BAAQMD. The approximate quantity of annual GHG emissions generated by construction equipment is 233 metric tons per year CO₂e (**Appendix A**). The total estimated GHG emissions from construction activities are amortized (averaged) over the 30-year expected lifespan of the building and included in the project's estimated operational GHG emissions.

Operational Emissions

The projected annual GHG emissions resulting from project operation are summarized in **Table 4.8-1**. As shown, project-related operational GHG emissions would not exceed the BAAQMD threshold. Therefore, impacts would be less than significant.

**TABLE 4.8-1
GREENHOUSE GAS EMISSIONS – PROJECT OPERATION**

Emissions Source	CO ₂ e (Metric Tons Per Year)
Construction (233) MTCO ₂ e amortized over 30 years)	7.7
Area	< 0.1
Energy	52.3
Mobile	860.3
Mobile (drive-through idling)	2.6
Waste	27.3
Water	0.7
Total	923.6
<i>Annual Threshold Comparison</i>	
BAAQMD Threshold Adjusted for SB 32 (year 2022)	993
Exceed BAAQMD Threshold?	No

Source: CalEEMod version 2016.3.2 and EMFAC 2017 (drive-through idling). See Appendix A for emission model outputs.

b) *Less Than Significant Impact.* The proposed project includes annexation of land to the City of Livermore and thus any emissions resulting from development of that land are not included in GHG inventories accounted for in the City's CAP. However, the site proposed for commercial development with a restaurant is under 1.5 acres and, as shown in the analysis above, would not add significantly to City GHG inventories. The proposed Highway Service Commercial (CHS) zoning of the 1.5-acre parcel would be consistent with the adjacent land zoning and use. The addition of a commercial use close to the I-580 corridor in an area already containing commercial uses would contribute to a reduction in trips by users of the highway. While emissions from vehicles using I-580 are not specifically included in City GHG inventories, any reductions will benefit the region. The remaining 21.5 acres of the project would be designated open space and remain private land that would not be available for public use; this would not result in additional direct or indirect sources of GHG emissions.

The proposed project includes extending the Arroyo Las Positas Class I Trail through the project property to connect with North Livermore Avenue. Provisions for bicycle parking are included in the project. These endeavors support the bicycle facility expansion efforts outlined in the City General Plan and Reduction Measure On Road-5: Bicycle and Pedestrian System Improvements from the City's CAP (2012a, p. 29). For these reasons, the proposed project is consistent with the City's CAP.

The proposed project would not make any changes to current City standards. All development in Livermore is required to adhere to all City-adopted policy provisions, including those contained in the adopted CAP. The City ensures all provisions of the Livermore CAP are incorporated into projects and their permits through development review and applications of conditions of approval as applicable. Therefore, this impact would be less than significant.

Mitigation Measures

None required.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
4.9 HAZARDS AND HAZARDOUS MATERIALS. Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<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"/>

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	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
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 area or, where such a plan has not been adopted, within 2 miles of a public airport or a 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 checked="" type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input 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"/>

SETTING

Existing Site Contamination/Phase I Report

The Phase I ESA was performed to identify recognized environmental conditions (RECs) at the project site and on surrounding properties which could have or are contributing to the degradation of on-site soil and/or groundwater. The Phase I ESA is included in **Appendix D**. Based upon current and historical land uses, public records, and visual reconnaissance of the site, Giles Engineering Associates (2016, p. 14) concluded that there are no such environmental conditions on the project site or adjacent properties. The Phase I ESA report identified one hazardous materials spill/release site located approximately 0.36 miles east of the project site. The Leaking Underground Storage Tank (LUST) site has attained closure status and is not considered a REC (Giles Engineering Associates 2016).

Airports

Livermore Municipal Airport is located approximately 2.5 miles west of the project site and is a general aviation reliever airport that serves to relieve the three mostly congested Bay Area air carrier airports from general aviation operation. The airport is owned by the City of Livermore and operates as a division of the City's Public Works Department.

Compatibility and safety concerns associated with the airport and surrounding land uses are regulated by the Alameda County Airport Land Use Commission (ALUC) via the Livermore

Municipal Airport Land Use Compatibility Plan (ALUCP). The ALUCP establishes an airport influence area (AIA), also known as the airport referral area, a planning area boundary in which current or future airport-related noise, overflight, safety, and/or airspace protection factors may significantly affect land uses or necessitate restrictions on those uses. The AIA includes portions of the cities of Livermore, Pleasanton, and Dublin and unincorporated Alameda County, extending west to Santa Rita Road, south to Stanley Boulevard, east to North Livermore Avenue, and extending north from Tassajara Road to North Livermore Avenue (Alameda County 2012). Because the project site is located just inside the eastern boundary of the Livermore Municipal Airport AIA, it will require ALUC review for consistency with the ALUCP.

DISCUSSION OF IMPACTS

a, b) *Less Than Significant Impact.* Project construction would involve the use of limited amounts of common hazardous materials (e.g., gasoline, diesel fuel, oils, solvents, paints). Contractors would be required to use, store, and dispose of any hazardous materials in accordance with all applicable federal, state, and local regulations. Commercial restaurant uses, like that proposed for the project site, do not typically involve the routine transport, use, or disposal of hazardous materials beyond small quantities of common materials such as cleaners, pesticides, gasoline, and oil, which would not create a significant hazard to the public or the environment. Given the lack of RECs identified in the Phase I ESA (Giles Engineering Associates 2016), the proposed project would not increase exposure to any existing site contamination.

The use, storage, manufacture, and transport of hazardous materials are highly regulated by the state and federal governments and the California Highway Patrol, as well as by the Livermore Pleasanton Fire Department (LPPFD), which is the locally designated Certified Unified Program Agency (CUPA) for Alameda County. The LPPFD oversees programs intended to reduce the potential for accidental hazardous substance releases in Livermore. Businesses and industries that generate, treat, and/or handle hazardous materials are required to submit plans to the LPPFD to ensure these materials are being managed appropriately. The US Department of Transportation, Office of Hazardous Materials Safety prescribes strict regulations for the safe transportation of hazardous materials, including containment rules that tell shippers how to package hazardous materials safely and drivers how to load, transport, and unload the material (Title 49, Code of Federal Regulations, Section 107.601). Compliance with local, state, and federal requirements would ensure that potential risks to public health and safety resulting from accidental hazardous substance releases would be effectively monitored and managed to minimize impacts.

c) *No Impact.* The Valley Montessori School is approximately one-quarter mile southeast of the proposed restaurant portion of the site. The proposed fast food restaurant, trail connection, and open space would not be an operational stationary source of hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste as defined in the California Health and Safety Code. There would be no impact.

d) *No Impact.* The Phase I ESA report did not identify any hazardous materials spill/release sites on or adjacent to the project that are monitored on the GeoTracker or EnviroStor databases.⁴ One LUST site was identified approximately 0.36 miles east of the site. However,

⁴ A review of EnviroStor (DTSC 2020) and Geotracker (SWRCB 2020) databases in April 2020 did not identify any new sites.

4.0 ENVIRONMENTAL CHECKLIST

this site has attained closure status and is not considered a REC (Giles Engineering Associates 2016).

- e) **Less Than Significant Impact.** The project site is located in Safety Compatibility Zone 7 of the AIA (Alameda County 2012, Figure 3-3). The proposed restaurant use is considered compatible with airport operations in terms of safety and is permitted with no restrictions on building intensity. Therefore, the project would not result in a safety hazard for people working or patronizing the project site.
- f) **No Impact.** The project site is not located in the vicinity of a private airstrip. The project would have no impact.
- g) **Less Than Significant Impact.** Connection to utility lines and construction of the off-site lane improvement on North Livermore Avenue would result in temporary lane closures, but one lane would remain open at all times, and a traffic control plan prepared and implemented by the applicant's construction contractor per City requirements. This would ensure the proposed project would not impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan. Impact would be less than significant.
- h) **Less Than Significant Impact.** The project site is located at the edge of urban development just south of I-580. North of the highway, the land is undeveloped but does not contain highly flammable vegetation, wildland areas, or rugged topography. Thus, the project site is not considered to be in a wildland-urban interface area. Therefore, development of the project site would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires.

Mitigation Measures

None required.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
4.10 HYDROLOGY AND WATER QUALITY. Would the project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	<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 through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
i) Result in substantial erosion or siltation on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv) Impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

SETTING

Surface Water Resources and Quality

Livermore's watershed and principal surface water resources include Arroyo Las Positas, Cayetano Creek, Arroyo del Valle, Arroyo Mocho, and Arroyo Seco. Most of these waterways flow from east to west (Livermore 2004). Arroyo Las Positas flows east to west, forming the northern boundary of the proposed restaurant site and the southern boundary of the open space area to the north.

Major sources of pollution in and around Livermore include runoff from urban and agricultural areas. These sources contribute petroleum hydrocarbons, metals, fertilizers, insecticides, and other chemicals to the water system.

4.0 ENVIRONMENTAL CHECKLIST

Groundwater

Water would be supplied to the project site by the California Water Service Company (Cal Water), Livermore District. Cal Water provides water under contract with the Zone 7 Water Agency for a municipal and industrial water supply that governs the delivery and use of both purchased water and groundwater. Water supply is discussed in more detail in subsection 4.19, Utilities and Service Systems.

Groundwater from the Livermore Valley Groundwater Basin currently supplies approximately 30 percent of the Livermore District's supply requirements, although this percentage is expected to decrease over time (Cal Water 2016). Cal Water currently has 12 groundwater wells in the Livermore District, 11 of which are active and 1 that is inactive. The total design capacity of the active wells is 7,015 gallons per minute (gpm) or 10.1 million gallons per day (mgd). The design capacity of the wells without the largest well in service is 6,115 gpm or 8.8 mgd. Cal Water's annual groundwater pumping quota is 3,069 acre-feet. The groundwater pumping quota is established through the contract with the Zone 7 Water Agency and is based on the annual safe yield of the Main Basin of the Livermore-Amador Valley Basin. The annual safe yield for the Main Basin is 13,200 acre-feet. The Zone 7 Water Agency recharges the Main Basin using storm runoff and imported supplies. Due to artificial recharge, the average static groundwater elevations in the Livermore District have remained relatively consistent over the past decade, although short periods of groundwater elevation decline and recovery have occurred.

Drainage

There is no developed storm drain system on the restaurant project site, but three distinct natural drainage areas. The northerly 0.51 acres of the restaurant site sheet flow to the north and drains to Arroyo Las Positas. The central 0.88 acres sheet flow along the length of the site from east to west and combine with runoff from the northerly drainage area to drain to Arroyo Las Positas. The southerly 0.24 acres of the site sheet flow to the southwest and drain to an existing storm drain grated inlet, located in the neighboring property. Arroyo Las Positas drains to Arroyo Mocho, Arroyo De La Laguna, Alameda Creek, Old Alameda Creek and finally into Lower San Francisco Bay (Joseph C. Truxaw & Associates, Inc. 2017, included in **Appendix E**).

Flooding

According to Federal Emergency Management Agency (FEMA) (2009) Flood Insurance Rate Map (FIRM) Community Panel Number 06001C0334G, the majority of the restaurant project site is designated Zone X, indicating that it is outside of the 0.2 percent annual chance floodplain. However, there is a small portion of the site that lies within the Arroyo Las Positas corridor, which is designated as a special flood hazard area subject to inundation by the 1 percent annual chance flood (Zone AE).

Portions of Livermore are located in the dam failure inundation hazard areas for Lake Del Valle Dam and Patterson Reservoir Dam. The project site is outside the limits of failure inundation for both dams (Livermore 2004).

Large underwater displacements from major earthquake fault ruptures or underwater landslides can lead to seiches or tsunamis. Seiches are waves that occur in enclosed bodies, such as lakes or bays, while tsunamis are ocean waves. The project site is approximately 40 miles east of the coast and is not in the vicinity of a large body of water or at risk of tsunami.

DISCUSSION OF IMPACTS**a) Less Than Significant Impact.**Construction

Construction activities would disturb and expose soils to water erosion, potentially increasing the amount of silt and debris entering downstream waterways. In addition, refueling and parking of construction equipment and other vehicles on-site could result in oil, grease, and other related pollutant leaks and spills that could enter runoff. As discussed in subsection 4.7, Geology and Soils, the project applicant would be required to prepare and submit an SWPPP in compliance with the Construction General Permit (Water Quality No. 2009-0009-DWQ, as amended by Order No. 2010-0014-DWQ and Order No. 2012-006-DWQ). The SWPPP must include BMPs to reduce construction effects on receiving water quality by implementing erosion control measures and reducing or eliminating non-stormwater discharges. In addition to the erosion control measures previously discussed, BMPs generally include storing materials and equipment to ensure that spills or leaks cannot enter the storm drain system or surface water; developing and implementing a spill prevention and cleanup plan; and installing sediment control devices such as gravel bags, inlet filters, fiber rolls, or silt fences to reduce or eliminate sediment and other pollutants from discharging to the drainage system or receiving waters. The applicant has prepared a preliminary Erosion Control Plan as part of its design package submittal to the City that identifies the locations of specific BMPs such as wattles and sediment filters and a stabilized construction entrance that would be used during construction. Additionally, the project would be required to comply with City of Livermore Municipal Code Chapter 13.45, Stormwater Management and Control Program, which specifies requirements for notification of intent and compliance with NPDES permits and best management practices as described above. Compliance with these requirements would ensure that site development activities would not result in the movement of unwanted material and/or pollutants into existing storm drain systems or Arroyo Las Positas. The impact would be less than significant.

Operation

The project would include driveways and a parking lot, which could contribute urban pollutants, such as oil, grease, and debris to stormwater drainage. New development operational BMPs are required under the City's Municipal Stormwater Permit (NPDES Permit No. CAS0029831), which implements the requirements of the San Francisco Bay Regional Water Quality Control Board Municipal Regional Permit. Provision C.3 of the City's Municipal Stormwater Permit requires the quality and quantity of stormwater flow from new development and redevelopment sites to be controlled. Specifically, the City ensures that stormwater pollutant discharges are reduced through incorporation of treatment measures and other appropriate source control and site design measures, and ensures that increases in runoff flows are managed to the maximum extent practicable. Conditions of approval for development projects require the implementation of site design/landscape characteristics where feasible which maximize infiltration (where appropriate), provide retention or detention, slow runoff, and minimize impervious land coverage, so that post-development pollutant loads from a site are reduced to the maximum extent practicable. As described above, the project would be subject to Municipal Code Chapter 13.45, which ensures compliance with the Municipal Stormwater Permit. The applicant has completed the Stormwater Requirements Checklist for the permit (included at the end of **Appendix E**),

4.0 ENVIRONMENTAL CHECKLIST

which identifies project features to manage stormwater runoff water quality to meet the City's Municipal Stormwater Permit requirements.

Site drainage would be routed to biofiltration/treatment basins, which are shown in **Figure 3.0-9**. Preliminary calculations to determine basin sizing have been prepared (Joseph C. Truxaw & Associates, Inc. 2017, included in **Appendix E**), and final sizing (along with drop inlet elevations and conveyance lines) will be confirmed in conjunction with issuance of the building permit. Biofiltration is intended to manage both groundwater recharge and water quality and would thus minimize potential impacts on water quality. Treated stormwater would be conveyed in an underground storm drain system constructed on-site, which would consist of a 12-inch line in the southern part of the site that would convey flows east to an existing 48-inch line in North Livermore Avenue (**Figure 3.0-10**). There would be no stormwater flows discharged into Arroyo Las Positas from the proposed project.

Compliance with NPDES requirements, including both the Construction General Permit and the City's Municipal Stormwater Permit, and design of the on-site stormwater collection and treatment system, as well as construction and maintenance of the proposed BMPs, would ensure that stormwater runoff during project construction and operation would not violate any water quality standards or waste discharge requirements and would not otherwise substantially degrade water quality. Therefore, the project would have a less than significant impact.

- b) *Less Than Significant Impact.*** Water would be supplied by Cal Water, which is limited to an annual groundwater pumping quota of 3,069 acre-feet based on the annual safe yield of the Main Basin of the Livermore-Amador Valley Basin. Safe yield is defined as the amount of groundwater that can be continuously withdrawn from a basin without adverse impact (DWR 2003). The proposed project's demand for water is minimal, as explained in subsection 4.19, Utilities and Service Systems. Any groundwater supplied to the project site as part of Cal Water's supply portfolio would be within Cal Water's groundwater pumping quota and thus within the safe yield of the groundwater basin. The proposed project includes biofiltration planters/treatment areas that would allow groundwater recharge on the site. For these reasons, the project would not decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin, nor would it conflict or obstruct implementation of a sustainable groundwater management plan.
- c) *Less Than Significant Impact.*** The proposed restaurant project site is currently undeveloped. Project implementation would increase the amount of impervious surface area (i.e., rooftop, parking areas, and driveways) compared to existing conditions, thus increasing stormwater runoff flow volumes and rates. The project includes construction of two bioretention basins as illustrated in **Figure 3.0-9**. These basins, for which preliminary calculations have been prepared to determining sizing (Joseph C. Truxaw & Associates, Inc. 2017), would be designed and constructed according to Provision C.3 of the City's Municipal Stormwater Permit. Final basin sizing and conveyance system features will be confirmed at the time a building permit is issued. All site drainage will be routed to these basins, which would be sized to ensure that the overall site discharge remains the same as under existing conditions. The treated stormwater would flow toward a 12-inch storm line constructed on the site, and the 12-inch line would be connected to an existing 48-inch line in North Livermore Avenue (**Figure 3.0-10**). The project site would be sloped away from the creek bank and would not discharge stormwater flows into Arroyo Las Positas. The pier wall would be set back from creek channel and would not involve any in-channel work. With these design features, the proposed project would not alter the course of Arroyo Las

Positas and thus would not result in substantial on-site or off-site erosion, flooding, or exceedance of an existing drainage system. Impacts would be less than significant.

- d) **No Impact.** The 1.5-acre portion of the project site that would contain the proposed restaurant is adjacent to Arroyo Las Positas, and the northernmost area is within a special flood hazard area (SFHA). While a portion of the drive-through lane on the north is within the SFHA, the proposed restaurant building would be constructed outside of the SFHA. There are no levees in the project vicinity, and the project is outside the limits of the dam failure inundation hazard areas for Lake Del Valle Dam and Patterson Reservoir Dam (Livermore 2004). The project site is approximately 40 miles east of the coast and is not in the vicinity of a large body of water that could lead to a seiche or tsunami. Therefore, there would be no risk of releasing pollutant due to project inundation, and no impacts would occur.
- e) **Less Than Significant Impact.** The proposed project would not conflict or obstruct implementation of a water quality control plan or sustainable groundwater management plan. See a) and b), above.

Mitigation Measures

None required.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
4.11 LAND USE AND PLANNING. Would the project:				
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

SETTING

The 23-acre project site consists of three parcels that are currently designated Water Management and Industrial in the Alameda County General Plan and Open Space (OSP) and Business and Commercial Park (BCP) in the City of Livermore General Plan. For the parcels within Alameda County, the zoning is Agriculture, and in the City of Livermore the zoning is Highway Service Commercial (CHS) for a portion of the restaurant project site, while the remainder of the site does not have a City zoning designation (see **Figure 3.0-12** and **Figure 3.0-13**, respectively). Although portions of the site are unincorporated Alameda County, the site is within the City's Urban Growth Boundary (UGB).

The project includes annexation of two unincorporated parcels into the City of Livermore. The City of Livermore General Plan contains the following policies that are relevant to land use planning at the project site:

- Objective LU-1.1: Locate new development so as to create a consolidated pattern of urbanization, maximizing the use of existing public services and facilities.

4.0 ENVIRONMENTAL CHECKLIST

- P3. The City shall annex all lands currently under County jurisdiction and within the UGB prior to development in areas designated for urban uses.
- Objective LU-4.2: Ensure that new development complements its local context and minimizes impacts on the environment.
 - P1. New development shall be designed to respect and enhance Livermore's existing development and natural environment.
 - P2. The use of "green construction" and land development techniques shall be encouraged as a means to reduce the environmental impacts of construction activity.
 - P3. Encourage all additions and new development to follow green building practices for design, construction, and operation and to incorporate as many LEED prerequisites and credits as feasible.

The Highway Service Commercial (CHS) zoning for the 1.5-acre proposed restaurant site is applied to commercial development near I-580 interchanges and is intended primarily to serve the traveling public, which includes nearby residential and commercial uses that use and/or drive past the interchange.

DISCUSSION OF IMPACTS

- a) **No Impact.** The proposed restaurant site is a vacant site surrounded by urban development on the west, south, and east. The project would connect to the existing roadway and sidewalk network and would not create any physical barriers. The 21.5-acre area north of Arroyo Las Positas would remain open space. Therefore, the project would not divide an established community, and no impact would occur.
- b) **Less Than Significant Impact.** The applicable plan is the City of Livermore General Plan. Upon annexation, in accordance with Objective LU-1.1 and associated policy P3, the proposed restaurant project would continue the pattern of urbanization along North Livermore Avenue, where there is existing retail and commercial uses as well as existing public services and facilities. It would be consistent with surrounding CHS zoning. No land use changes to the open space area north of Arroyo Las Positas are proposed as part of this project. With the General Plan amendment, the portion of the restaurant site that is designated OSP would be changed to BCP, which allows for commercial development. With the amendment, there would be no inconsistencies with the General Plan and zoning. A Conditional Use Permit (CUP) will be required for the project to allow a drive-through restaurant. The potential environmental impacts of a CUP for operation of the restaurant (e.g., traffic safety and traffic-generated noise, air pollutant, and GHG emissions) are evaluated in this Initial Study.

The project has been designed to be sensitive to surrounding visual context, as shown in **Figure 3.0-6** and as discussed in subsection 4.1, Aesthetics. Policies in the General Plan protect and enhance public views from and in these corridors. The project site is situated within the I-580 scenic corridor, Subarea 5, Subpart 5A, at the easternmost edge where it adjoins Subarea 5B to the east. The General Plan includes specific requirements for residential and commercial areas in Subpart 5A south of the proposed restaurant site, but it does not contain any prescriptive requirements for the area where the proposed restaurant is situated such as height limits or requirements for view angles. The City's

Municipal Code provides for height exceedances in the CHS zone, as would occur with the proposed restaurant. Height exceedances greater than 35 feet but not over 50 feet in the CHS zone are permitted with a CUP. Although the project would exceed the allowable maximum height by approximately 1.7 feet, the height would not have an adverse effect on the viewshed, as explained in subsection 4.1, Aesthetics. Impacts would be less than significant.

As explained in subsection 4.6, Energy, the project would incorporate required CalGreen sustainability measures, consistent with the requirements of Objective LU-4.2, policies P1 through P3. The proposed project would be consistent with the requirements of the EACCS with implementation of mitigation measures, as described in subsection 4.4, Biological Resources.

Because the proposed project would not conflict with applicable policies or regulations adopted for the purpose of avoiding or mitigating an environmental effect, impacts would be less than significant.

Mitigation Measures

None required.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
4.12 MINERAL RESOURCES. Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<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"/>

SETTING

The California Geological Survey (CGS) has mapped and classified the aggregate resources of the Livermore-Amador Valley. The project site is in an area classified as Mineral Resource Zone (MRZ)-1. Areas classified MRZ-I are areas where adequate information indicates that no significant mineral deposits are present, or where it is judged that little likelihood exists for their presence (DOC-DMG 1987). The Livermore General Plan shows six "resource sectors" in the city and surrounding area where mineral extraction is occurring or that has current land uses that are similar to areas where mining has occurred (Livermore 2004). The project site is located east of these sectors.

4.0 ENVIRONMENTAL CHECKLIST

DISCUSSION OF IMPACTS

a, b) No Impact. The project site is in an urbanized area, and there are no known mineral resources of value to the region or state and no locally important mineral resource recovery sites. There would be **no impact**.

Mitigation Measures

None required.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
4.13 NOISE. Would the project result in:				
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project 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) Generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) For a project located within the vicinity of a private airstrip or an airport land use plan area or, where such a plan has not been adopted, within two miles of a public airport or a 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"/>

SETTING

I-580 borders the 23-acre project site to the north. North Livermore Avenue is an arterial route that provides access between I-580, retail areas, residential neighborhoods, and downtown Livermore. North Livermore Avenue borders the site to the east and is a major source of traffic noise. Commercial development to the south consists of a fast food restaurant, a gas station, a hotel, and a credit union. Undeveloped land borders the site to the west. The 1.5-acre proposed restaurant parcel lies in the southeast corner of the project site adjacent to North Livermore Avenue, the fast food restaurant, and hotel.

Noise-Sensitive Receptors

Noise-sensitive land uses are those that may be subject to stress and/or interference from excessive noise. Noise-sensitive land uses include public schools, hospitals, and institutional uses such as churches, museums, and private schools. Typically, residential uses are also considered noise-sensitive receptors. Industrial and commercial land uses are generally not considered

sensitive to noise. The closest noise-sensitive receptors to the proposed restaurant are the Valley Montessori School approximately 1,300 feet to the southeast and single-family homes and apartments approximately 1,500 feet to the south and west. The proposed restaurant is not a noise-sensitive receptor.

Existing Roadway Noise Levels

Existing roadway noise levels were calculated for the roadway segments in the vicinity of the project area using the Federal Highway Administration (FHWA) Highway Noise Prediction Model (FHWA-RD-77-108) and traffic volumes from the traffic impact study (Hexagon 2020). The model calculates the average noise level at specific locations based on traffic volumes, average speeds, and roadway geometry. The average vehicle noise rates (energy rates) utilized in the FHWA model were modified to reflect average vehicle noise rates identified for California by Caltrans. The Caltrans data shows that California automobile noise is 0.8 to 1.0 dB higher than national levels and that medium and heavy truck noise is 0.3 to 3.0 dB lower than national levels. The average daily noise levels along these roadway segments are presented in **Table 4.13-1**.

**TABLE 4.13-1
EXISTING TRAFFIC NOISE LEVELS**

Roadway Segment	Calculated Noise Levels (dBA)			
	CNEL @ 100 Feet from Roadway Centerline	Distance (feet) from Roadway Centerline to:		
		70 CNEL Noise Contour	65 CNEL Noise Contour	60 CNEL Noise Contour
North Livermore Avenue				
I-580 Underpass	60.1	—	—	101
I-580 to Arroyo Plaza	62.8	—	72	155
Arroyo Plaza to Las Positas Road	62.4	—	67	144
Las Positas Road to Portola Road	59.8	—	—	97

Source: Based on traffic data in the TIA (Hexagon 2020). See Appendix F for detailed noise modeling results.

DISCUSSION OF IMPACTS

a) Less Than Significant Impact.

Short-Term Noise Generation

Project construction would temporarily increase noise levels on the project site. Construction noise typically occurs intermittently and varies depending on the nature or phase of construction (e.g., land clearing, grading, excavation, paving). Noise generated by construction equipment, including earth movers, material handlers, and portable generators, can reach high levels. Typical noise levels associated with individual construction equipment are summarized in **Table 4.13-2**.

As depicted in **Table 4.13-2**, noise levels associated with individual construction equipment used for typical construction projects can reach levels of up to approximately 90 dBA L_{max} (FTA 2006). Operating cycles for these types of construction equipment may

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involve one or two minutes of full power operation followed by three to four minutes at lower power settings.

During project construction, exterior noise levels could affect the nearest existing noise-sensitive receptors. As discussed above, the nearest sensitive receptors are all located farther than 1,000 feet from the proposed construction site. Temporary and intermittent construction noise levels could reach an hourly L_{eq} of 63 dB at those sites.

**TABLE 4.13-2
TYPICAL CONSTRUCTION EQUIPMENT NOISE LEVELS**

Equipment	Typical Noise Level (dBA) at 50 Feet from Source	
	L_{max}	$L_{eq(hour)}$
Air Compressor	80	76
Backhoe/Front End Loader	80	76
Compactor (Ground)	80	73
Concrete Mixer Truck	85	81
Concrete Mixer (Vibratory)	80	73
Concrete Pump Truck	82	75
Concrete Saw	90	83
Crane	85	77
Dozer/Grader/Excavator/Scraper	85	81
Drill rig truck	79	72
Generator	82	79
Gradall	85	81
Jackhammer	85	78
Pavement Scarifier/Roller	85	78
Paver	85	82
Pneumatic Tools	85	82
Pumps	77	74
Truck (Dump/Flat Bed)	84	80

Source: FTA 2006

Due to the temporary, intermittent nature of construction noise, there are no specific noise level limits regulating construction noise. Consistent with the City's Noise Ordinance 9.36.080 (Livermore 2017a), construction is not permitted between the hours of 6:00 p.m. Saturday and 7:00 a.m. Monday; between 8:00 p.m. and 7:00 a.m. on Monday, Tuesday, Wednesday, and Thursday; or between 8:00 p.m. Friday and 9:00 a.m. on Saturday or on City-observed holidays. Because the proposed project would be subject to compliance with the City's Noise Ordinance requirements regarding construction noise and because the closest sensitive receptors are located more than 1,000 feet from the project site, this impact would be less than significant.

Long-Term Noise Generation

Traffic Noise

The project would generate an increase in vehicle trips, thereby resulting in an increase in traffic-generated noise. Traffic noise levels were calculated using the FHWA roadway noise prediction model (FHWA-RD-77-108) based on California vehicle reference noise emission factors. Additional input data included vehicle speeds and roadway widths. Predicted noise levels were calculated at a distance of 100 feet from the near-travel-lane centerline.

Table 4.13-3 shows the calculated roadway noise level in the project vicinity as a result of the project. Traffic volume data was obtained from the traffic impact analysis prepared for the project (Hexagon 2020).

**TABLE 4.13-3
EXISTING PLUS PROJECT TRAFFIC NOISE LEVELS**

Roadway Segment	Calculated Noise Levels (dBA)			
	CNEL @ 100 Feet from Roadway Centerline	Distance (feet) from Roadway Centerline to:		
		70 CNEL Noise Contour	65 CNEL Noise Contour	60 CNEL Noise Contour
North Livermore Avenue				
I-580 Underpass	60.3	—	—	104
I-580 to Arroyo Plaza	63.0	—	74	159
Arroyo Plaza to Las Positas Road	62.5	—	68	147
Las Positas Road to Portola Road	60.0	—	—	83

Source: Based on traffic data in the TIA (Hexagon 2020). See Appendix F for detailed noise modeling results.

The City of Livermore General Plan Noise Element, Table 9-7 (Livermore 2013) specifies the following exterior noise levels objectives that are considered acceptable for different land uses:

- Single-Family Residential: 60 dBA CNEL.
- Multi-Family Residential: 65 dBA CNEL.
- Commercial, Retail: 70 dBA CNEL.

As shown in **Table 4.13-3**, traffic noise levels on the segments of North Livermore Avenue analyzed do not exceed 70 dBA CNEL. The traffic noise level for any commercial or retail use in those segments would be considered acceptable. Between Las Positas Road and Portola Road, the Valley Montessori School and single-family homes are adjacent to North Livermore Avenue, approximately 70 feet from the roadway centerline. To determine if traffic generated by the proposed project would exacerbate the traffic noise level on North Livermore Avenue, the change in dBA CNEL was compared for the existing and existing plus project conditions. The results are summarized in **Table 4.13-4**. As shown, increases in vehicular traffic would result in a maximum increase of 0.2 dB in the project area. A 3 dB increase in noise is considered a just-perceivable difference. Because the project's traffic-generated noise level increase would be less than 3 dB along the roadway segments analyzed, the project would have a less than significant impact.

**TABLE 4.13-4
PREDICTED CHANGES IN TRAFFIC NOISE LEVELS
(EXISTING PLUS PROJECT)**

Roadway Segment	CNEL @ 100 Feet from Roadway Centerline (dBA)		Increase (dBA)	Threshold (dBA)	Impact	Existing Land Use Adjoining Segment
	Without Project	With Project				
North Livermore Avenue						
I-580 Underpass	60.1	60.3	0.2	> 3.0	No	Open Space
I-580 to Arroyo Plaza	62.8	63.0	0.2	> 3.0	No	Open Space, Commercial
Arroyo Plaza to Las Positas	62.4	62.5	0.1	> 3.0	No	Commercial
Las Positas to Portola	59.8	60.0	0.2	> 3.0	No	Commercial, Residential

Source: Based on traffic data in the TIA (Hexagon 2020). See Appendix F for detailed noise modeling results.

Cumulative Traffic Noise

Predicted traffic noise levels for the year 2040 with and without the proposed project are summarized in **Table 4.13-5**. As shown, the maximum increase in CNEL due to the project would be 0.1 dBA. Because the proposed project would increase noise levels less than 3 dB, the project would have a less than cumulatively considerable impact on traffic noise.

**TABLE 4.13-5
PREDICTED CHANGES IN YEAR 2040 TRAFFIC NOISE LEVELS
(CUMULATIVE PLUS PROJECT)**

Roadway Segment	CNEL @ 100 Feet from Roadway Centerline (dBA)		Increase (dBA)	Threshold (dBA)	Impact	2040 Land Use Adjoining Segment
	Without Project	With Project				
North Livermore Avenue						
I-580 Underpass	61.9	61.9	0	> 3.0	No	Commercial & Residential
I-580 to Arroyo Plaza	64.0	64.1	0.1	> 3.0	No	Commercial & Residential
Arroyo Plaza to Las Positas	63.8	63.8	0	> 3.0	No	Commercial & Residential
Las Positas to Portola	61.2	61.3	0.1	> 3.0	No	Commercial

Source: Based on traffic data in the TIA (Hexagon 2020). See Appendix F for detailed noise modeling results.

Other Operational Noise

In addition to traffic-related noise, the project would generate other long-term operational noise, mainly associated with the retail component of the project. Operational noise sources would include parking lot activities, building mechanical equipment, restaurant deliveries, and refuse collections. These noise sources and times of day they would be generated are similar to the noise generated by the surrounding commercial development. For this reason and because the nearest sensitive receptors are more than 1,000 feet away, operational noise would have a less than significant impact.

- b) **Less Than Significant Impact.** Project construction would have the potential to result in varying degrees of temporary groundborne vibration, depending on the specific construction equipment used and the operations involved. Vibration generated by construction equipment spreads through the ground and diminishes in magnitude with increases in distance. This impact discussion utilizes Caltrans's (2013) recommended standard of 0.2 inches per second (in/sec) peak particle velocity (PPV) with respect to the prevention of structural damage for normal buildings. **Table 4.13-6** displays vibration levels for typical construction equipment.

**TABLE 4.13-6
TYPICAL CONSTRUCTION EQUIPMENT VIBRATION LEVELS**

Equipment	Peak Particle Velocity at 25 Feet (inches/second)
Large Bulldozer	0.089
Loaded Truck	0.076
Jackhammer	0.035
Small Bulldozer/Tractor	0.003
Caisson drill	0.089

Source: FTA 2006; Caltrans 2013

The nearest structure is a fast food restaurant, approximately 15 feet from the project site boundary. Construction activities would occur throughout the project site and would not be concentrated at the point closest to the nearest structure. Based on the vibration levels presented in **Table 4.13-6**, ground vibration generated by heavy-duty equipment would not be anticipated to exceed approximately 0.09 in/sec PPV at 25 feet. Therefore, the use of construction equipment would most likely not result in a groundborne vibration velocity level above 0.2 in/sec; predicted vibration levels at the nearest off-site structures would not exceed recommended criteria. Additionally, this impact would be temporary and would cease completely when construction ends. Once operational, the project would not be a source of groundborne vibration. Therefore, impacts would be less than significant.

- c) **No Impact.** The project site is not located within the limits of the noise contours of Livermore Municipal Airport's Noise Compatibility Zones as identified in the ALUCP (Alameda County 2012) or near a private airstrip. The project would have no impact.

Mitigation Measures

None required.

4.0 ENVIRONMENTAL CHECKLIST

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
4.14 POPULATION AND HOUSING. Would the project:				
a) Induce substantial population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input 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"/>

DISCUSSION OF IMPACTS

- a) *Less Than Significant Impact.*** The proposed project would not result in a permanent increase in population because it would not include residential development, but it would generate local employment opportunities. The proposed project is surrounded by urban development and in the vicinity of public service/utility infrastructure. Therefore, the project would not indirectly induce growth in other areas. The project would result in less than significant impacts associated with population growth.
- b, c) *No Impact.*** The project site does not currently contain any housing. Therefore, the project would not displace any housing or people. No impact would occur.

Mitigation Measures

None required.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
4.15 PUBLIC SERVICES.				
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the following public services:				
Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

SETTING

Fire and Police Protection

The Livermore-Pleasanton Fire Department (LFPD) provides fire protection and emergency medical services in Livermore. The LFPD is located at 951 Rincon Avenue, approximately 1 mile from the project site.

Police protection services are provided by the Livermore Police Department (LPD). The police station is located at 1110 S. Livermore Avenue, approximately 2 miles south of the project site.

Parks and Recreation

Livermore has an extensive park network ranging from large regional parks covering several hundred acres to small neighborhood parks. There are several designated bikeways within the vicinity of the project site. The Class I Arroyo Las Positas Trail is identified in the City's Active Transportation Plan (Trail T-6) and will eventually connect the Springtown area of the City to the western edge of the City near North Canyons Parkway and Las Positas College. Planned improvements include a gap closure between the Portola Avenue/I-580 overcrossing and the existing portion of the trail at the rear of the apartment complex on Paseo Laguna Seco. Another gap closure is planned to extend the existing trail past North Livermore Avenue to connect to the other portion of the existing trail near the Arroyo Plaza retail center.

The 21.5-acre area north of Arroyo Las Positas is open space but is privately owned with no public access until the City accepts the open space dedication in the future.

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DISCUSSION OF IMPACTS

a)

Fire and Police

Less Than Significant Impact. After project implementation, fire and police services would continue to be provided to the project site by the LPPD and the LPD, respectively. The development of the restaurant would minimally increase demand for fire protection and police services in an existing commercial area. As a result, the project would not substantially change services ratios or the ability to provide adequate services with existing facilities. The project would not trigger the need for additional fire protection or police facilities. Increased demand would be funded by revenue increases from the project to the City's General Fund, which funds the LPPD and the LPD. Furthermore, both the LPPD and LPD have reviewed the project; no project-specific issues were identified and no mitigation measures would be required. Therefore, impacts on fire and police services would be less than significant.

Schools and Parks

No Impact. The proposed project would not result in residential uses or increase in population that would generate students or result in park use. There would be no impact.

Other Public Facilities

Less Than Significant Impact. The proposed project would not increase the demand on other public facilities, but it does intend to construct a key segment of the Arroyo Las Positas Class I Trail along the southern side of the restaurant project site to North Livermore Avenue (**Figure 3.0-4**). The project would facilitate the use of the trail. Environmental impacts of constructing the trail and its operation are evaluated as part of the analysis in this Initial Study. No significant impacts were identified.

Mitigation Measures

None required.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
4.16 RECREATION.				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<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, which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

SETTING

Livermore has an extensive park network ranging from large regional parks covering several hundred acres to small neighborhood parks. There are several designated bikeways in the vicinity of the project site.

DISCUSSION OF IMPACTS

- a) **No Impact.** The proposed project does not include residential uses that would increase the demand for parks and recreational facilities in the area. There would be no impact.
- b) **Less than Significant Impact.** The Class I Arroyo Las Positas Trail is identified in the City's Active Transportation Plan (Trail T-6) and will eventually connect the Springtown area of the City to the western edge of the City near North Canyons Parkway and Las Positas College. Planned improvements include a gap closure to extend the existing trail past North Livermore Avenue to connect to the other portion of the existing trail near the Arroyo Plaza retail center. The project would construct a key segment of the Arroyo Las Positas Class I Trail along the southern side of the restaurant project site to North Livermore Avenue (**Figure 3.0-4**). The project would facilitate the use of the trail. Environmental impacts of constructing the trail and its operation are evaluated as part of the analysis in this Initial Study. No significant impacts were identified. The open space area north of the Arroyo Las Positas would remain open space that is privately owned without public access until the City accepts the open space dedication in the future.

Mitigation Measures

None required.

4.0 ENVIRONMENTAL CHECKLIST

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
4.17 TRANSPORTATION. Would the project:				
a) Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

The impact analysis in this subsection for the proposed restaurant is based on the *Chick-fil-A Restaurant on North Livermore Avenue Traffic Impact Analysis (TIA)* prepared for the project by Hexagon Transportation Consultants, Inc. (Hexagon 2020). The TIA is included as **Appendix G** of this Initial Study. The change in land use designation for the remainder of the project site to open space would not result in vehicle trips that require analysis.

SETTING

Project Location and Access

The proposed restaurant project site is on the west side of North Livermore Avenue at the signalized Arroyo Plaza intersection. There is no public roadway access to the project site from North Livermore Avenue or the adjacent commercial property to the south (Jack in the Box).

Existing Roadway Network

Regional access to the project site is provided via I-580. I-580 is an east–west freeway with four mixed-flow lanes and two express lanes in the eastbound direction, and four mixed-flow lanes and one express lane in the westbound direction within the project vicinity. I-580 provides regional access from Marin County and the East Bay cities in Alameda County to San Joaquin County, where it merges with I-5. Access to the project study area is provided via its interchange with North Livermore Avenue. Local access to the site is provided on North Livermore Avenue. Other roadways in the study area include Arroyo Plaza, Las Positas Road, and Portola Avenue. These roadways are described below.

North Livermore Avenue is primarily a four-lane, north–south arterial roadway that begins at Manning Road north of I-580 and continues south past Concannon Boulevard, where it becomes Tesla Road. North Livermore Avenue is adjacent to the project site and provides access to residential and commercial uses. North Livermore Avenue would provide direct access to the project site via a proposed driveway directly opposite Arroyo Plaza.

Arroyo Plaza is primarily a two-lane, east–west private driveway that begins at Las Positas Road in the east and circulates west through the Vintage Square Shopping Center to North Livermore Avenue. Arroyo Plaza is east of the project site and would align with the proposed project driveway at North Livermore Avenue.

Las Positas Road is primarily a two-lane, east–west roadway that begins at Greenville Road in the east and continues west to North Livermore Avenue, where it becomes Las Positas Court. Las Positas Road is south of the project site and provides access to commercial and industrial uses.

Portola Avenue is primarily a four-lane, east–west roadway that begins at First Street in the east and continues west over I-580 to Collier Canyon Road, where it becomes North Canyons Parkway. Portola Avenue is south of the project site and provides access to residential and commercial uses.

Existing Transit Service

Existing transit service to the study area is provided by the Livermore-Amador Valley Transit Authority (LAVTA). Bus stops within the vicinity of the project site are located along North Livermore Avenue and Las Positas Road. The only LAVTA bus service line within the study area is the Local Route 15. Local Route 15 provides service between the Livermore Transit Center and Springtown Boulevard via North Livermore Avenue and Las Positas Road, with 30-minute headways during the week and 60-minute headways on the weekend. The bus stops closest to the project site are located along North Livermore Avenue, 500 feet south of the North Livermore Avenue/Las Positas Road intersection, as well as along Las Positas Road at Arroyo Plaza.

Existing Pedestrian and Bicycle Facilities

Pedestrian facilities consist of sidewalks, crosswalks, and pedestrian signals at signalized intersections. In the project vicinity, sidewalks are provided on both sides of North Livermore Avenue, Arroyo Plaza, Las Positas Road, and Portola Avenue. Crosswalks with pedestrian signal heads and push buttons are provided at all the signalized study intersections except at the eastbound and westbound I-580 ramps. There are no crosswalks at the I-580 ramps and at the southern legs of the North Livermore Avenue intersections at Arroyo Plaza (project driveway) and Las Positas Road.

According to the Alameda CTC Bicycle Plan and the City of Livermore Active Transportation Plan (ATP) (Livermore 2018a), there are several designated bikeways within the vicinity of the project site. Bicycle facilities are categorized into different classifications: Class I multi-use trail, Class II bike lane, Class III bike route, and Class III bike boulevard. Class I multi-use trails have a separate right of way exclusive for bicycles and pedestrians. Class II bike lanes are dedicated pavement within a roadway with striping and signage separating bicyclists from motorists. Class III bike routes are roadways where the travel lane is wide enough for both bicycles and vehicles and have low traffic volume. Class III bike boulevards are bike routes with additional modifications intended to provide cyclists with a higher level of comfort and safety. Designated bicycle facilities are provided along segments of the following roadways in the study area:

- In the project vicinity, the Class I Arroyo Las Positas Trail begins at the intersection of Campus Hill Drive/Isabel Avenue and Portola Avenue to the west and ends at Northfront Road to the east. There are a few gaps between the existing portions of the trail. In the project vicinity, the existing trail starts from the rear of the apartment complex on Paseo Laguna Seco and continues east on the south side of the Arroyo where it terminates about 1,000 feet west of North Livermore Avenue. Another disjoint segment extends westward

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from Las Colinas Road approximately 0.6 miles to the east end of the Arroyo Plaza retail center. Planned improvements include a gap closure between the Portola Avenue/I-580 overcrossing and the existing portion of the trail at the rear of the apartment complex on Paseo Laguna Seco. Another gap closure is planned to extend the existing trail past North Livermore Avenue to connect to the other portion of the existing trail near the Arroyo Plaza retail center.

- North Livermore Avenue has Class II bicycle lanes in both directions between Las Positas Road and Portola Avenue.
- Las Positas Road has Class II bicycle lanes in both directions between Greenville Road and North Livermore Avenue.
- Portola Avenue has Class II bicycle lanes in both directions for its entire length.

The City of Livermore General Plan Circulation Element (Livermore 2014) and ATP (Livermore 2018a) provide the policy framework for regulation and development of the transportation systems in Livermore. The Circulation Element and ATP are intended to provide clear policies and priorities for circulation system improvements for use by the City in preparing budgets for the Capital Improvement Program, and to determine the appropriate conditions for approval of future development proposals.

DISCUSSION OF IMPACTS

- a) *Less Than Significant Impact.*** The traffic study included an analysis of AM and PM peak-hour traffic conditions for five signalized intersections and two roadway segments in the vicinity of the project site: The study intersections and roadway segments are identified below.

Study Intersections

1. North Livermore Avenue and I-580 Westbound Ramps
2. North Livermore Avenue and I-580 Eastbound Ramps
3. North Livermore Avenue and Arroyo Plaza
4. North Livermore Avenue and Las Positas Road
5. North Livermore Avenue and Portola Avenue

Roadway Segments

1. North Livermore Avenue, between Arroyo Plaza and Las Positas Road
2. North Livermore Avenue, between Las Positas Road and Portola Avenue

Most of the project trips to and from the freeway would be diverted linked trips that are already on the freeway. Because the project is expected to generate fewer than five new primary trips on each freeway segment, a freeway analysis was not required.

Traffic conditions at the study intersections were analyzed for both the weekday AM and PM peak hours of adjacent street traffic. The AM peak hour is expected to occur between 7:00 AM and 9:00 AM, and the PM peak hour is expected to occur between 4:00 PM and 6:00 PM on a regular weekday. These are the peak commute hours during which most traffic congestion occurs on the roadways.

Traffic conditions were evaluated for the following scenarios:

Scenario 1: Existing Conditions. Existing conditions were represented by existing peak-hour traffic volumes on the existing roadway network. Existing traffic volumes were obtained from new traffic counts conducted in October 2019.

Scenario 2: Background Conditions. Background conditions were represented by future traffic volumes on the future roadway network. Background traffic volumes were estimated by adding to existing peak-hour volumes the projected volumes from approved but not yet constructed developments in the study area. A list of approved developments was obtained from the City of Livermore.

Scenario 3: Project Conditions. Project-generated traffic volumes were added to background traffic volumes to estimate background plus project conditions (also referred to as project conditions). Project conditions were evaluated relative to background conditions in order to determine potential project impacts.

Scenario 4: Cumulative Conditions. Cumulative conditions represent traffic growth projected to occur due to the approved development projects and proposed but not yet approved (pending) development projects in the study area. Cumulative traffic volumes were estimated based on available year 2040 forecasts from the Alameda County travel demand forecast model.

Scenario 5: Cumulative plus Project Conditions. Cumulative plus project conditions were estimated by adding to the cumulative traffic volumes the additional traffic estimated to be generated by the proposed project. Cumulative plus project conditions were evaluated relative to cumulative conditions to determine potential project impacts.

Traffic conditions at the study intersections were evaluated using level of service (LOS), which is a qualitative description of operating conditions ranging from LOS A, or free-flow conditions with little or no delay, to LOS F, or jammed conditions with excessive delays.

The City of Livermore evaluates LOS at signalized intersections based on the 2000 *Highway Capacity Manual* (HCM) methodology using Synchro software. The 2000 HCM method evaluates signalized intersection operations based on average control delay time for all vehicles at the intersection.

The City of Livermore LOS standard for signalized intersections is mid-level LOS D or better (average vehicle delay of 45 seconds or less), except within the downtown area, near freeway interchanges, or designated major east–west streets carrying a high percentage of regional cut-through traffic. The downtown area and major east–west streets have no LOS standard, while intersections near freeway interchanges have a standard of LOS E. According to the General Plan, the following study intersections are near freeway interchanges:

- North Livermore Avenue and I-580 Westbound Ramps
- North Livermore Avenue and I-580 Eastbound Ramps
- North Livermore Avenue and Arroyo Plaza
- North Livermore Avenue and Las Positas Road

These four study intersections have a standard of LOS E. There are no study intersections that are considered within the downtown area or a major east–west street with a high percentage of regional cut-through traffic. Thus, the intersection of North Livermore Avenue and Portola Avenue is subject to the mid-level LOS D standard.

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Standards of Significance

According to the City of Livermore, a development project would create a significant adverse impact on traffic conditions at a signalized intersection if, for either peak hour, either of the following conditions occurs:

1. The level of service at the intersection degrades from an acceptable level (mid-level LOS D or better and LOS E at intersections near freeway interchanges) under no-project conditions to an unacceptable level (LOS E or F and LOS F at intersections near freeway interchanges) under project conditions; or
2. The level of service at the intersection is an unacceptable level under no-project conditions and the addition of project trips causes the average intersection delay to increase by five or more seconds.

Project Trip Estimates

Based on average trip generation rates for a fast food restaurant with a drive-through window (Land Use 934), the proposed development would generate a total of 2,182 daily trips, with 186 trips (95 in and 91 out) occurring during the AM peak hour and 151 trips (79 in and 72 out) occurring during the PM peak hour.

A pass-by trip reduction of 50 percent, as well as a diverted linked trip reduction of 25 percent, was applied to the trip generation. Pass-by trips are trips that would already drive by the site on North Livermore Avenue (and are therefore already counted in the existing traffic), but would turn into the site while passing by the site. Pass-by trips result in a reduction in through traffic on North Livermore Avenue and an equivalent increase in trips turning in and out of the project driveway. Diverted linked trips are trips that would be diverted from other study area roadways (such as I-580) to the project site. Although diverted linked trips would add traffic to the segment of North Livermore Avenue between the project site and I-580, the trips would not be new to the study area. Justification for applying the pass-by trip reduction and the diverted linked trip reduction is founded on the observation that such traffic is not primarily generated by the proposed development, but is already part of the ambient traffic levels.

After applying the pass-by and diverted linked trip reductions, the project would generate 545 new primary trips per day, with 46 new primary trips occurring during the AM peak hour and 37 new primary trips occurring during the PM peak hour.

Background plus Project Intersection Impacts

The results of the LOS analysis under project conditions are summarized in **Table 4.17-1**. The results show that, when measured against City of Livermore standards, the five signalized study intersections would operate at mid-level LOS D or better during both the AM and PM peak hours of traffic. The addition of project trips would not cause any study intersections to degrade to an unacceptable level. Therefore, this would be a less than significant impact.

**TABLE 4.17-1
BACKGROUND AND BACKGROUND PLUS PROJECT INTERSECTION LEVEL OF SERVICE**

Intersection		Control	Peak Hour	Background		Background Plus Project	
				Delay	LOS	Delay	LOS
1	N. Livermore Avenue and I-580 WB Ramps	Signal	AM	17.8	B	18.8	B
			PM	16.6	B	16.7	B
2	N. Livermore Avenue and I-580 EB Ramps	Signal	AM	24.3	C	25.2	C
			PM	21.8	C	24.1	C
3	N. Livermore Avenue and Arroyo Plaza	Signal	AM	6.5	A	12.4	B
			PM	8.4	A	12.4	B
4	N. Livermore Avenue and Las Positas Road	Signal	AM	26.0	C	26.0	C
			PM	35.9	D	35.9	D
5	N. Livermore Avenue and Portola Avenue	Signal	AM	36.3	D	36.5	D
			PM	37.0	D	37.3	D

Source: Hexagon (2020), included in Appendix G.

Notes: LOS results presented in terms of average intersection delay in seconds per vehicle.

Cumulative plus Project Intersection Impacts

Cumulative conditions for the five study intersections were estimated based on year 2040 traffic volumes from the County's travel demand forecast model. Project trips were added to the cumulative traffic estimates to estimate traffic volumes under cumulative plus project conditions. The results of the LOS analysis under cumulative conditions are summarized in Table 4.17-2.

**TABLE 4.17-2
CUMULATIVE AND CUMULATIVE PLUS PROJECT INTERSECTION LEVEL OF SERVICE**

Intersection		Control	Peak Hour	Cumulative		Cumulative Plus Project	
				Delay	LOS	Delay	LOS
1	N. Livermore Avenue and I-580 WB Ramps	Signal	AM	18.2	B	17.9	B
			PM	16.5	B	16.6	B
2	N. Livermore Avenue and I-580 EB Ramps	Signal	AM	27.2	C	28.3	C
			PM	46.6	D	50.4	E
3	N. Livermore Avenue and Arroyo Plaza	Signal	AM	5.7	A	12.7	B
			PM	7.6	A	13.8	B
4	N. Livermore Avenue and Las Positas Road	Signal	AM	25.4	C	25.3	C
			PM	38.9	D	39.1	D
5	N. Livermore Avenue and Portola Avenue	Signal	AM	51.8	D	52.7	D
			PM	44.5	D	44.7	D

Source: Hexagon (2020), included in Appendix G.

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The results show that, when measured against the City of Livermore LOS standards, all study intersections but one are expected to operate at acceptable levels both with and without the proposed project. Under cumulative conditions, the intersection of North Livermore Avenue and Portola Road (Intersection 5) would exceed mid-level LOS D (45 seconds average delay) during the AM peak hour both with and without the additional trips generated by the proposed project. However, based on the significance criteria presented above, because the addition of project trips would cause the average intersection delay to increase less than five seconds, the impact would be less than significant for that intersection.

Roadway Segments

For North Livermore Avenue between Arroyo Plaza and Las Positas Road, the total traffic volume expected under project conditions is approximately 28,700 vehicles per day. Under cumulative plus project conditions, the daily traffic volume on this segment is estimated to be 36,200. The traffic volumes forecast on this roadway segment under project and cumulative conditions are within acceptable levels based on the criteria described in the General Plan. For North Livermore Avenue between Las Positas Road and Portola Avenue, total traffic volume expected under project conditions is approximately 32,100 daily trips. Under cumulative plus project conditions, the daily traffic volume on this segment is estimated to be 40,600. The traffic volumes forecast on this roadway segment under project and cumulative conditions are within acceptable levels based on the criteria described in the General Plan. Impact would be less than significant.

Pedestrian and Bicycle Facilities

There are pedestrian and bicycle facilities in the project vicinity as described in the Setting subsection above. The proposed project would construct a key segment of the Arroyo Las Positas Class I Trail (Trail T-6 in the City's ATP) along the southern boundary of the restaurant site (see **Figure 3.0-4**). The proposed project component supports bicycle facility improvement plans in the City of Livermore General Plan (City of Livermore 2011) and the ATP.

The City of Livermore zoning regulations (Section 4.04.030) require the project to provide a minimum of four bicycle stalls or a number equal to 20 percent of the required off-street parking, whichever is greater. Based on a requirement of 41 parking spaces, the proposed project would be required to provide 8 bicycle parking spaces. The proposed site plan has provisions for 10 bicycle parking spaces near the northeast corner of the restaurant, which is more spaces than required. A sidewalk would be installed on the project frontage along North Livermore Avenue.

Transit Facilities

The LAVTA bus stops closest to the project site are located along North Livermore Avenue, 500 feet south of the North Livermore Avenue/Las Positas Road intersection, as well as along Las Positas Road at Arroyo Plaza. The proposed off-site improvement at the North Livermore Avenue/Arroyo Plaza intersection (**Figure 3.0-5**) would not affect the transit stops or scheduled service.

- b) Less Than Significant Impact.** As part of the 2019 update to the CEQA Statutes and Guidelines that became effective on January 1, 2019, the guidelines for assessing transportation impacts were revised to reflect SB 743, which mandates a change in

transportation impact analysis from a consideration of the project's congestion impacts to a consideration of a project's VMT impacts. In response to this anticipated change, the Governor's Office of Planning and Research (OPR) released the Technical Advisory on Evaluating Transportation Impacts in CEQA to assist CEQA practitioners with the implementation of SB 743. The technical advisory contains the following recommendations for the transportation analysis of retail development projects (OPR 2018):

By adding retail opportunities into the urban fabric and thereby improving retail destination proximity, local-serving retail development tends to shorten trips and reduce VMT. Thus, lead agencies generally may presume such development creates a less-than-significant transportation impact.

The project site is in unincorporated Alameda County but would be annexed into the City, with a change in zoning to Highway Service Commercial (CHS). As explained in subsection 4.11, Land Use and Planning, the CHS designation is applied to commercial development near I-580 interchanges and is intended primarily to serve the traveling public, which includes nearby residential and commercial uses that use and/or drive past the interchange. The project size is well under 50,000 square feet of floor area, a development size that the OPR technical advisory suggests might be considered a regional-serving use. As stated above, approximately 50 percent of the project trips would be pass-by trips and approximately 25 percent would be diverted linked trips. It is reasonable, therefore, to characterize the project as local-serving retail, and that on a regional level, VMT may actually be reduced as a result of the project, as customers may be traveling a shorter distance to access the proposed uses on the site than would occur without the proposed project.

- c) **Less Than Significant Impact with Mitigation Incorporated.** Vehicular access to the project site would be provided via one full-access driveway that would form the fourth leg at the intersection of North Livermore Avenue and Arroyo Plaza. Results of a queuing analysis show that under cumulative conditions, the northbound left-turn movement on North Livermore Avenue at the I-580 westbound ramp would exceed the two-lane pocket storage by three vehicles during the PM peak hour and spillback into the North Livermore Avenue/I-580 EB ramps intersection. The proposed project would add four vehicles per lane per hour to the left-turn movement (less than one vehicle per signal cycle). The small increase in traffic volume would not increase the 95th percentile queue length. Thus, the project trips would have an insignificant impact on traffic operations at this intersection.

The proposed project includes modifications to the signalized intersection at North Livermore Avenue/Arroyo Plaza to accommodate left turns into the project driveway from North Livermore Avenue. Improvements would include a left-turn lane and modification to the median, as shown in **Figure 3.0-5**. According to the TIA, the length of the planned new northbound left-turn pocket (approximately 100 feet) would be sufficient to accommodate the 95th percentile queue length during both the AM and PM peak hours.

There is the potential that vehicles exiting the project driveway could exceed the driveway throat, which could pose a hazard to queued vehicles entering the site. To ensure that eastbound left-turn movements out of the project driveway onto North Livermore Avenue do not exceed the driveway throat, a "Keep Clear" pavement marking and a custom caution sign should be placed at the drive-through exit, directing vehicles to wait when eastbound vehicles queues at the North Livermore Avenue/Arroyo Plaza intersection begin to stack. With implementation of mitigation measure **MM TRA-1**, this would allow for

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inbound vehicles from North Livermore Avenue to enter the site without interference or delays, which would reduce potential impacts to less than significant.

The proposed drive-through would be a single lane with space for 18 vehicles between the drive-through entrance and exit, assuming an average spacing of 25 feet per vehicle. As reported in the TIA, observed vehicle queues during the peak lunch and dinner hours on a typical weekday and Saturday at two Chick-fil-A restaurants in the Bay Area, the maximum queue contained 14 vehicles. Thus, the proposed drive-through stacking space for the project is expected to be sufficient for all time periods. Although the drive-through queue is not expected to overflow the storage space provided, there is ample space onsite to accommodate any excess drive-through queue before reaching North Livermore Avenue. Therefore, on-site and off-site queuing impacts would not pose a traffic safety hazard, and impacts would be less than significant.

- d) **Less Than Significant Impact.** Emergency access to and from the project site would be via the full-access driveway at the intersection of North Livermore Avenue and Arroyo Plaza. All lane widths within the project meet minimum widths that can accommodate emergency vehicles. Therefore, sufficient access, including emergency access, would be provided to the project site. In addition, as explained in subsection 4.9, Transportation, Item g), the applicant's construction contractor will be required to implement a construction traffic control plan that addresses temporary lane closures during utility connections and construction of the left-turn lane improvement on North Livermore Avenue so that emergency access in the project vicinity is not impaired. Impacts would be less than significant.

Mitigation Measures

- MM TRA-1** The project applicant shall place a "Keep Clear" sign on the project driveway as illustrated in Figure 13 (Circulation Mitigation) in the Traffic Impact Study (Hexagon 2020).

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
4.18 TRIBAL CULTURAL RESOURCES. Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

SETTING

Tribal cultural resources are defined in CEQA as a site, feature, place, cultural landscape, sacred place, or object with cultural value to a California Native American tribe, which may include non-unique archeological resources previously subject to limited review under CEQA.

Assembly Bill 52 Native American Consultation

AB 52 requires the lead agency (in this case the City of Livermore) to begin consultation with any California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project prior to the release of a negative declaration or mitigated negative declaration if (1) the California Native American tribe requested to the lead agency, in writing, to be informed by the lead agency through formal notification of proposed projects in the geographic area that is traditionally and culturally affiliated with the tribe, and (2) the California Native American tribe responds, in writing, within 30 days of receipt of the formal notification and requests the consultation (Public Resources Code Section 21080.3.1 [d]).

CONSULTATION

The City sent a written request to the lone Band of Miwok Indians in response to the tribe's request for notification of projects pursuant to AB 52 and applicable sections of the Public Resources Code. The tribe did not respond to the City's request within 30 days of receiving the invitation for consultation from the City.

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- a) **Less Than Significant Impact with Mitigation Incorporated.** No tribal cultural resources are known in the project area; however, the City will require standard, late-discovery mitigation measures. In the event that tribal cultural resources are observed during construction, mitigation measure **MM TCR-1** would reduce impacts to less than significant. Mitigation measures **MM CUL-1** and **MM CUL-2** would also be implemented, which provide for inadvertent discovery of cultural resources.

Mitigation Measures

MM TCR-1 **Tribal Cultural Resources.** If tribal cultural resources are discovered during project construction, all work within 25 feet of the discovery will be redirected and the construction contractor will contact the City. The City will contact an archaeologist who meets the Secretary of Interior's Professional Qualification Standards for archaeology to assess the resource, consult with agencies as appropriate, and make recommendations regarding the treatment of the discovery. Impacts on tribal cultural resources should be avoided; however, if avoidance is not feasible, the resources will be evaluated for their California Register eligibility. If the tribal cultural resource is not California Register-eligible, no further protection of the find is necessary. If the tribal cultural resource is California Register-eligible, it will be protected from project-related impacts or recovered, which may include systematic recovery and analysis, recording the resource, preparation of a report of findings, and accessioning recovered archaeological materials at an appropriate curation facility.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
4.19 UTILITIES AND SERVICE SYSTEMS. Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 checked="" type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input 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 that 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 checked="" type="checkbox"/>	<input 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"/>

SETTING

Wastewater

In Livermore, sewer service is provided by the City of Livermore's Public Services Department, Water Resources Division. Wastewater facilities consist of the collection system, treatment plant (Livermore Water Reclamation Plant), and disposal system. During 2016, the average dry weather flow into the Water Reclamation Plant was 5.5 mgd; the plant has a rated capacity of 8.5 mgd average dry weather flow, and the City's wastewater facilities have adequate capacity to accommodate anticipated growth projected in Livermore. At buildout, the average dry weather flow at the Livermore Water Reclamation Plant is projected to be 9.47 mgd. In 2013, the City completed an update of the 2006 Water Reclamation Plant Master Plan to confirm the additional plant facilities needed to accommodate buildout flows and any anticipated regulatory changes. The Water Reclamation Plant Master Plan update identifies the additional plant facilities needed to treat future flows. The needed electrical upgrades and aeration tank improvements were completed between 2014 and 2017. As such, with the system expansion projects already identified in the City's Capital Improvement Program, the City has adequate wastewater disposal capacity to meet the buildout sewer flow of the current General Plan (Livermore 2017b).

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Wastewater treated at the Livermore Water Reclamation Plant is either discharged to the Livermore-Amador Valley Water Management Agency (LAVWMA) pipeline for disposal or treated further to meet recycled water regulations and used for landscape irrigation or other uses. Wastewater disposal is through the LAVWMA export pipeline and pump station. Treated wastewater from Livermore flows to the LAVWMA disposal facility in Pleasanton, where it is combined with treated wastewater from the Dublin San Ramon Services District and then pumped 16 miles to the San Francisco Bay. The City's allocated peak wet weather capacity in the expanded LAVWMA system is 12.4 mgd (Livermore 2017b).

As of 2016, the City's collection system included approximately 300 miles of public sewer, 6,400 manholes and clean-outs, and over 30,000 sewer service connections. The system also includes four lift stations, two siphons, and 3 miles of force main (Livermore 2017b).

Water

The Cal Water Livermore District service area is approximately 7,400 acres (about 11.5 square miles) and encompasses approximately 60 percent of the incorporated area of the city. Cal Water facilities for supply sources include 12 wells and 9 Zone 7 turnouts. Cal Water also has 24 stations located throughout the Livermore District distribution system, 23 water tanks totaling 10.9 million gallons, and 7 hydro-pneumatic tanks providing peak demand and fire flow storage. There are approximately 207 miles of pipeline in Livermore District service area. Pipelines in Cal Water's distribution system range from 1 to 16 inches in diameter (Livermore 2014a).

The Livermore District currently obtains its water supply from two sources: treated water supplies from Zone 7 and local groundwater. Retail demand for commercial uses is projected to be 1,691 acre-feet per year (AFY) in 2020, increasing to 2,084 AFY in 2040. Total retail demand in the service area is 11,946 AFY in 2020 and 12,346 AFY in 2040. According to its most recent Urban Water Management Plan, Cal Water expects to have adequate water supplies to meet demand through 2040 in normal years, single-dry years, and multiple dry-years (Cal Water 2016).

Storm Drainage

There is no developed storm drain system on the restaurant project site. The northerly 0.51 acres of the site sheet flow to the north and drain to Arroyo Las Positas. The central 0.88 acres sheet flow along the length of the site from east to west and combine with runoff from the northerly drainage area to drain to Arroyo Las Positas. The southerly 0.24 acres of the site sheet flow to the southwest and drain to an existing storm drain grated inlet, located in the neighboring property (Joseph C. Truxaw & Associates, Inc. 2017).

Solid Waste

Solid waste is collected by Livermore Sanitation and transported to the Republic Services Vasco Road Landfill for disposal under a contract with the City that expires December 31, 2023. The Vasco Road Landfill is located at 4001 North Vasco Road on 435 acres of land; the landfill's current permit allows for disposal on 246 acres. The landfill is permitted to receive a maximum of 2,518 tons of waste per day and is permitted through 2020. The Vasco Road Landfill had a remaining capacity of about 8 million cubic yards (CalRecycle 2016). The Alameda County Waste Management Authority is currently identifying solid waste disposal options for after 2022, including the option to expand the Vasco Road Landfill and/or the potential to dispose waste at an alternative facility.

DISCUSSION OF IMPACTS

a, b, d, e) Less Than Significant Impact.Wastewater

Wastewater generated by the restaurant component of the proposed project would be conveyed via the City's existing wastewater system to the Livermore Water Reclamation Plant. The plant currently meets all applicable water quality standards and waste discharge requirements. Flows from the restaurant would be domestic wastewater, similar to that generated by nearby restaurants. The restaurant would be required to comply with applicable fats, oil, and grease disposal regulations. According to the project applicant, the restaurant would generate approximately 1,500 gpd of wastewater (0.0015 mgd), which would represent a negligible contribution to wastewater flows treated at the plant. The project applicant would be required to pay development impact and utility connection fees toward ongoing improvement of the wastewater system. Therefore, this impact would be less than significant.

Water

Water would be provided to the project site by Cal Water. There are existing water distribution lines along North Livermore Avenue, which serve adjacent commercial properties. Based on information provided by the project applicant, the restaurant would use approximately 1,700–1,800 gpd (2 AFY) of water. This would represent a negligible contribution to commercial demand (0.1 percent). The project would be required to pay development impact and utility connection fees toward ongoing improvement of the water system. The project would also be subject to Livermore Municipal Code Chapter 13.25, Water Efficient Landscape, which includes requirements for landscape design, soil care, irrigation design and scheduling, and management, using reasonable amounts of water while ensuring that aesthetic, functional, energy, and environmental benefits of landscapes are achieved with design flexibility. This would further reduce the proposed project's water demands.

- c) Less Than Significant Impact.** The proposed restaurant project site is currently undeveloped open space containing no impervious surfaces. Project implementation would result in the addition of substantial impervious surface area (i.e., building rooftop, parking areas, and driveways), thus increasing runoff flow volumes and rates. The project includes bioretention basins as shown in **Figure 3.0-9**. These basins would be designed and constructed according to the City's Stormwater Municipal Permit requirements. Treated stormwater would be conveyed in an underground storm drain system constructed on-site, which would consist of a 12-inch line in the southern part of the site that would convey flows east to an existing 48-inch line in North Livermore Avenue (**Figure 3.0-10**). The on-site stormwater system would be sized to ensure that the overall site discharge remains the same as under existing conditions. Therefore, new off-site stormwater drainage facilities or expansion of existing facilities would not be required. Impacts would be less than significant.
- f, g) Less Than Significant Impact.** Construction and operation of the proposed restaurant would generate solid waste and recyclable materials. Regulations require that 50 percent of construction waste be diverted. According to the project applicant, based on solid waste generation information for a similar restaurant in the area, the operation of the proposed restaurant would generate 8 cubic yards (cy) of compacted solid waste, 16 cy of recyclable materials, and 4 cy of organic waste per week. Based on these estimates,

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the project would divert more than 50 percent of solid waste from its waste stream. Remaining solid waste generated by operation of the proposed project that would require landfill disposal (approximately 416 cy per year) would be hauled by Livermore Sanitation to the Republic Services Vasco Road Landfill for disposal. The project's contribution of 416 cy per year would reduce landfill capacity by less than 0.0001 percent, which is negligible. Therefore, the proposed project would be served by a solid waste service provider and landfill with sufficient capacity. Because the project would comply with all applicable solid waste regulations for both project construction and operation and would be served by a solid waste service provider and landfill with sufficient capacity, impacts would be less than significant.

Mitigation Measures

None required.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
4.20 WILDFIRE. If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

DISCUSSION OF IMPACTS

The project site is located between urban development and vacant land covered by non-native grasses and weeds, in an area identified by the California Department of Forestry and Fire Protection's Hazard Severity Zone map for Alameda County as a Moderate Fire Hazard Severity Zone (Cal Fire 2008). The project site is near a State Responsibility Area that covers the surrounding hills.

- a) **Less Than Significant Impact.** The City of Livermore's Emergency Operations Plan (2018b) is the City's foundation for disaster response and recovery operations. The LFPD responds to all calls for emergency services within the Livermore city limits for fires, emergency medical incidents, public assists, traffic and vehicle accidents, and other emergency situations. The closest LFPD fire station is at 951 Rincon Avenue, approximately 1 mile from the project site. The project would not impede local roadways or otherwise block access to the State Responsibility Area and this impact would be less than significant.
- b) **Less Than Significant Impact.** The project would not, due to slope, prevailing winds, or other factors, exacerbate wildfire risks such that the project would expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire. Because the project occupants would have access to local roads, including I-580, to leave the area in the event of a wildfire, the project's impact would be less than significant.
- c) **No Impact.** The project would not require the installation or maintenance of wildfire-related infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment. The project would have no impact.
- d) **Less Than Significant Impact.** The project site is not subject to flooding or landslides and thus would not expose people or structures to significant risks from flooding or landslides that may occur in areas downslope from or downstream of a wildfire. This impact would be less than significant.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
4.21 MANDATORY FINDINGS OF SIGNIFICANCE.				
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of rare or endangered plants or animals, or 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 that will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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DISCUSSION OF IMPACTS

- a) **Less Than Significant Impact With Mitigation Incorporated.** None of the potential impacts identified for the proposed project have the potential to substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, or reduce the number or restrict the range of rare or endangered plants or animals with implementation of mitigation measures **MM BIO-1** through **MM BIO-6**, which address special-status species and species protected under the MBTA. Although no significant cultural or tribal cultural resources would be affected by project implementation, mitigation measures **MM CUL-1**, **MM CUL-2**, and **MM TCR-1** provide for management of inadvertent discovery.
- b) **Less Than Significant Impact.** The proposed project would not result in air quality or GHG emissions impacts that would be cumulatively considerable, as explained in subsections 4.3, Air Quality, and 4.8, Greenhouse Gases, above. The project would not result in significant cumulative noise or traffic impacts, as noted in subsection 4.13, Noise, and subsection 4.17, Transportation, respectively. The project's potential contribution to potentially significant biological resources and cultural/tribal cultural resources impacts would be reduced through mitigation measures identified in this Initial Study.
- c) **Less Than Significant Impact With Mitigation Incorporated.** As explained in subsections 4.1, Aesthetics, 4.3, Air Quality, 4.7, Geology and Soils, 4.9, Hazards and Hazardous Materials, 4.10, Hydrology and Water Quality, 4.13, Noise, and 4.20, Wildfire, above, the proposed project would not result in any significant physical environmental effects related to aesthetics, air quality, geology, hazardous materials, hydrology, noise, or wildfire impacts that would cause substantial adverse effects on human beings, either directly or indirectly. A potential traffic hazard impact resulting from queued vehicles entering the site from North Livermore Avenue and vehicles exiting the site from the project driveway onto North Livermore Avenue would be mitigated through **MM TRA-1**, as explained in subsection 4.17, Transportation, item c).

REFERENCES

- Alameda County. 2012. *Livermore Executive Airport, Airport Land Use Compatibility Plan*.
- . 2020. Community Development Agency, Planning Department. E-mail from Liz McElligott, Assistant Planning Director to Michael Baker International. May 28.
- BAAQMD (Bay Area Air Quality Management District). 2017a. *Bay Area 2017 Clean Air Plan*.
- . 2017b. *CEQA Air Quality Guidelines*.
- BLM (Bureau of Land Management). 1871. *Township 3 South, Range 2 East, Mount Diablo Meridian*. Public Land Survey Map. Electronic Resource, https://gloreports.blm.gov/details/survey/default.aspx?dm_id=321005&sid=kaqbtlci.n40&surveyDetailsTabIndex=1, accessed multiple.
- Byrd, Brian F. Ph.D. 2008. *Historic Property Survey Report for I-580 Westbound High Occupancy Vehicle Land Project, Greenville Road to San Ramon/Foothill Roads, Alameda County, California*. Far Western Anthropological Research Group, Inc. Prepared for California Department of Transportation. On file at the Northwest Information Center.
- . 2009. *Addendum Archaeological Survey Report for the I-580 Eastbound High Occupancy Vehicle Lane Project, Livermore Valley, Alameda County, California*. Far Western Anthropological Research Group, Inc. Prepared for David J. Powers Associates, Inc. On file at the Northwest Information Center.
- Cal Fire (California Department of Forestry and Fire Protection). 2008. *Alameda County Fire Hazard Severity Zones [map]*. http://www.fire.ca.gov/fire_prevention/fhsz_maps_alameda.
- CalRecycle (California Department of Resources Recycling and Recovery). 2016. *Facility/Site Summary Details*. <http://www.calrecycle.ca.gov/SWFacilities/Directory/01-AA-0010>.
- Caltrans (California Department of Transportation). 2013. *Transportation and Construction Vibration Guidance Manual*.
- . 2015. *The California Scenic Highway Program*. <http://www.dot.ca.gov/dist3/departments/mtce/scenic.htm>.
- Cal Water (California Water Service Company). 2016. *2015 Urban Water Management Plan, Livermore District*.
- CAPCOA (California Air Pollution Control Officers Association). 2018. *Health Effects*. <http://www.capcoa.org/health-effects/>.
- CARB (California Air Resources Board). 2020. *Air Quality Monitoring Network iADAM Top 4 Summary*. <http://www.arb.ca.gov/adam/topfour/topfour1.php>. Accessed May 3, 2020.
- CDFG (California Department of Fish and Game). 2012. *Staff Report on Burrowing Owl Mitigation*.
- DOC (California Department of Conservation). 2018. *Division of Land Resource Protection. Alameda County Important Farmland 2016 [map]*.

4.0 ENVIRONMENTAL CHECKLIST

- DOC-DMG (California Department of Conservation, Division of Mines and Geology). 1987. *Mineral Land Classification: Aggregate Minerals in the San Francisco-Monterey Bay Area*. Special Report 146, Part II. Plate 2.14.
- DTSC (Department of Toxic Substances Control). 2020. EnviroStor. Accessed April 21, 2020. <https://www.envirostor.dtsc.ca.gov/public/>.
- DWR (California Department of Water Resources). 2003. *Bulletin 118, California's Groundwater*.
- ENGEO. 2019a. *Proposed Chick-fil-A Restaurant North Livermore Avenue Buried Cast-in-Drilled-Hole Pier Wall Design*.
- . 2019b. *Proposed Chick-fil-A Restaurant North Livermore Avenue Creek Scour and Geomorphology Evaluation and Recommendations*.
- . 2019c. *Proposed Chick-fil-A Restaurant North Livermore Avenue Geotechnical Exploration Update*.
- FCS (First Carbon Solutions). 2020. *Biological Resources Assessment Report 1.5-acre Livermore Chick-fil-A Project, City of Livermore, Alameda County, California*.
- FEMA (Federal Emergency Management Agency). 2009. Flood Insurance Rate Map, Community Panel Number 06001C0341G.
- FTA (Federal Transit Administration). 2006. *Transit Noise and Vibration Impact Assessment*.
- Giles Engineering Associates. 2016. Phase I Environmental Site Assessment, *Proposed Chick-fil-A Restaurant #3805*.
- . 2017. *Geotechnical Engineering Exploration and Analysis, Proposed Chick-fil-A Restaurant #3805*.
- Hexagon. 2020. *Chick-fil-A Restaurant on North Livermore Avenue Traffic Impact Analysis*.
- Higley, Horace A. 1857. *Official Map of the County of Alameda, California*. Electronic resource, http://www.davidrumsey.com/luna/servlet/detail/RUMSEY~8~1~1590~190094:The-County-Of-Alameda-California-?sort=Pub_List_No_InitialSort%2CPub_Date%2CPub_List_No%2CSeries_No&qvq=w4s;/where%2FAlameda%2BCounty%2B%252528Calif.%252529%2Fwhen%2F1857;q:the%2Bcounty%2Bof%2Balameda;sort:Pub_List_No_InitialSort%2CPub_Date%2CPub_List_No%2CSeries_No;|c:RUMSEY~8~1&mi=0&trs=1, accessed multiple.
- Holman, Miley Paul. 1984. *Letter Report: Anderson Tract Development Area Archaeological Research*. Holman and Associates, Inc. Prepared for Earth Metrics, Inc. On file at the Northwest Information Center.
- . 1985. *Portola Avenue/Highway 580 Development Archaeological Report*. Holman & Associates. On file at the Northwest Information Center.
- Jones, E. Timothy and Ben Matzen. 2005. *A Cultural and Paleontological Resource Study for the Arroyo Las Positas Trail Extension Project*. LSA Associates, Inc. On file at the Northwest Information Center.

- Joseph C. Truxaw & Associates, Inc. 2017. *Preliminary Hydrology and Hydraulic Analysis for SWC of N. Livermore Ave. & I-580 Freeway, Livermore, California 94550*. September 8.
- Levy, R. 1978. "Costanoan." In *California*, edited by R. F. Heizer, Volume 8. Handbook of North American Indians, W. G. Sturtevant, general editor, pp. 485–497. Smithsonian Institution, Washington, DC.
- Livermore, City of. 2004. *City of Livermore General Plan 2003–2025*.
<http://www.cityoflivermore.net/citygov/cdd/planning/general.htm>.
- . 2005. *Comprehensive Emergency Management Plan*.
- . 2012a. *Livermore Climate Action Plan*.
<http://www.cityoflivermore.net/civicax/filebank/documents/9789/>.
- . 2012b. *Livermore Bikeways Map*.
<http://www.cityoflivermore.net/civicax/filebank/documents/3620/>
- . 2013. *City of Livermore General Plan Noise Element*.
<http://www.cityoflivermore.net/civicax/filebank/documents/6100/>.
- . 2014. *City of Livermore General Plan Circulation Element*.
- . 2017a. *City of Livermore Municipal Code: Chapter 9.36 Noise*.
<http://www.codepublishing.com/CA/Livermore/Municipal/Livermore09/Livermore0936.html#9.36.080>.
- . 2017b. *Livermore Community Services and Infrastructure Report*.
<http://www.cityoflivermore.net/civicax/filebank/documents/16276>
- . 2018a. *Bicycle, Pedestrian, and Trails Active Transportation Plan*.
- . 2018b. *Emergency Operations Plan*.
<http://www.cityoflivermore.net/civicax/filebank/documents/17788/>.
- Margolin, M. 1978. *The Ohlone Way: Indian Life in the San Francisco-Monterey Bay Area*. Berkeley, CA: Heyday Books.
- Miller, Donald P. 1976. *Letter Report for an Intensive Archaeological Survey of 1570 Portola Avenue, Livermore, Alameda County*. Quaternary Research Group. On file at the Northwest Information Center.
- Milliken, R.T. 1995. "A Time of Little Choice: The Disintegration of Tribal Culture in the San Francisco Bay Area 1769-1810." Ballena Press Anthropological Papers No. 43.
- OHP (California Office of Historic Preservation). 1976. *California Inventory of Historic Resources*. California Department of Parks and Recreation, Sacramento. On file at the Northwest Information Center.
- . 1992. *California Points of Historical Interest*. California Department of Parks and Recreation, Sacramento. On file at the Northwest Information Center.

4.0 ENVIRONMENTAL CHECKLIST

- . 1996. California Historical Landmarks. California Department of Parks and Recreation, Sacramento. On file at the Northwest Information Center.
- . 2012a. Archaeological Determinations of Eligibility for Alameda County, April 5, 2012. California Department of Parks and Recreation, Sacramento. On file at the Northwest Information Center.
- . 2012b. Directory of Properties in the Historic Property Data File for Alameda County, April 5, 2012. California Department of Parks and Recreation, Sacramento.
- O’Neal, William C. 1981a. Archaeological Site Survey Record for P-01-002108/CA-ALA-430H. On file at the Northwest Information Center.
- . 1981b. The Robert Livermore Adobe Site. Livermore Heritage Guild. On file at the Northwest Information Center.
- OPR (Governor’s Office of Planning and Research). 2018. Technical Advisory on Evaluating Transportation Impacts in CEQA. <http://opr.ca.gov/ceqa/technical-advisories.html>.
- Parsons. 2006. *Historic Property Survey Report for I-580 Eastbound HOV Lane Project: Hacienda Drive to East of Greenville Road*. Prepared for US Department of Transportation, Federal Highway Administration, California Department of Transportation, and Alameda County Congestion Management Agency. On file at the Northwest Information Center.
- Stoyka, Michael III. 1991. *Cultural Resources Assessment, Livermore Carrier Annex, Livermore, Alameda County, California*. Archaeological Services, Inc. On file at the Northwest Information Center.
- SWRCB (State Water Control Board) 2020. GeoTracker. Accessed April 21, 2020. <https://geotracker.waterboards.ca.gov/>.
- USGS (US Geological Survey). 1906. *Pleasanton, Calif.* 1:62,500 scale topographic quadrangle.
- . 1941. *Pleasanton, Calif.* 1:62,500 scale topographic quadrangle.
- . 1949. *Aerial Single Frame Photo ID: 1JL0000020032*. Electronic resource, <https://earthexplorer.usgs.gov/>, accessed March 2017.
- . 1953. *Livermore, Calif.* 7.5-minute topographic quadrangle.
- . 1961. *Livermore, Calif.* 7.5-minute topographic quadrangle (Photorevised 1968).
- . 1968. *Aerial Single Frame Photo ID: 1VBZJ00060198*. Electronic resource, <https://earthexplorer.usgs.gov/>, accessed March 2017.
- Wiberg, Randy S., Randall Dean, and Miley P. Holman. 1998. A Cultural Resources Study for the North Livermore Master Plan/Specific Plan, Environmental Impact Report, Alameda County, California. Holman & Associates. On file at the Northwest Information Center.