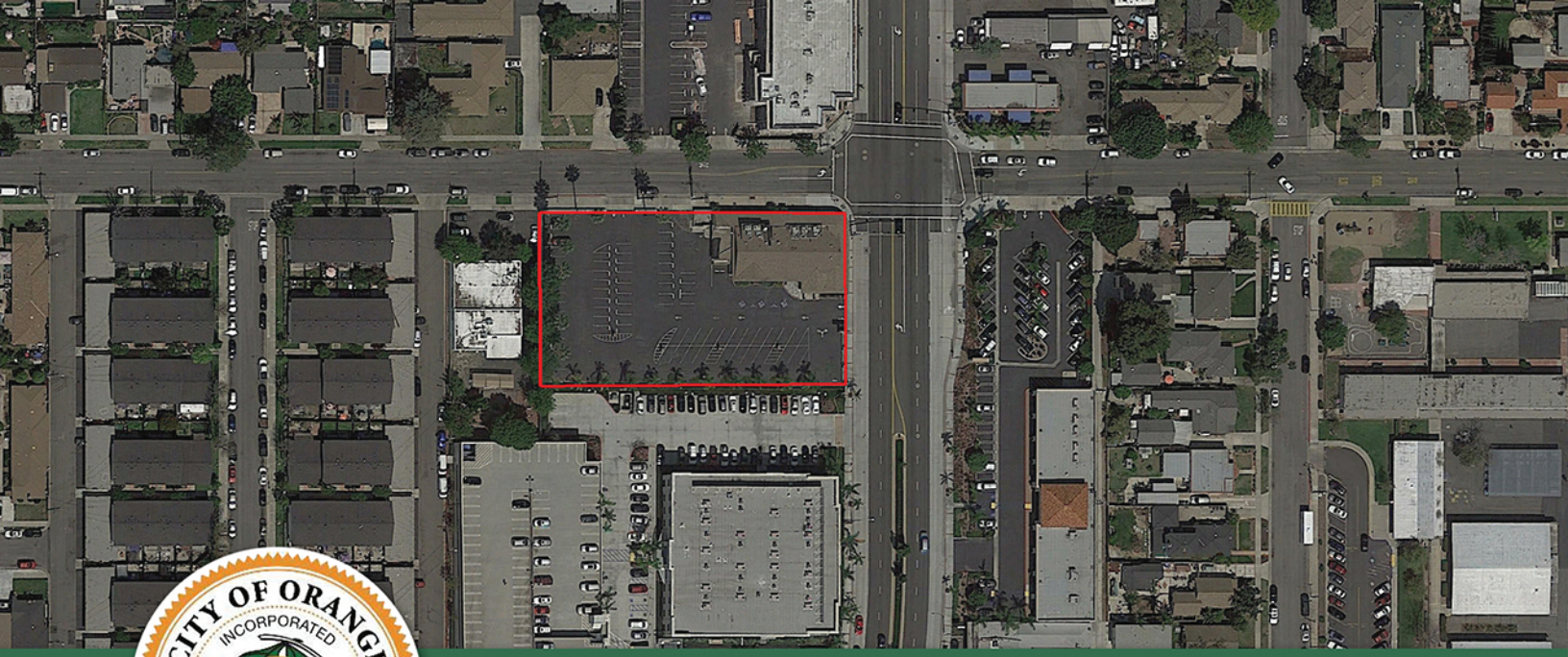

Draft Initial Study/Mitigated Negative Declaration | August 2019

Proposed Chick-fil-A® Drive-Thru Restaurant

Initial Study/Mitigated Negative Declaration No. 1858-18

Prepared for:
City of Orange

Prepared by:
Michael Baker International

DRAFT

INITIAL STUDY/MITIGATED NEGATIVE DECLARATION NO. 1858-18

PROPOSED CHICK-FIL-A DRIVE-THRU RESTAURANT

LEAD AGENCY:

City of Orange
300 E. Chapman Avenue
Orange, California 92866
Contact: Robert Garcia
714.744.7231

PREPARED BY:

Michael Baker International
5 Hutton Centre Drive, Suite 500
Santa Ana, California 92707
Contact: Ms. Kristen Bogue
949.472.3505

August 2019

JN 166516

This document is designed for double-sided printing to conserve natural resources.

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MITIGATED NEGATIVE DECLARATION AND TECHNICAL APPENDICES ON CD

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MITIGATED NEGATIVE DECLARATION NO. 1858-18

Project Title:	**Reference Application Numbers:**
Proposed Chick-fil-A Drive-Thru Restaurant	General Plan Amendment No. 2018-0002, Zone Change No. 1287-18, Conditional Use Permit No. 3044-17, Design Review No. 4909-17, Minor Site Plan No. 0904-17, and Environmental Document No. 1858-18.
Lead Agency:	**Contact Person and Telephone No.:**
City of Orange	Robert Garcia, 714.744.7231
Project Proponent and Address:	**Contact Person and Telephone No.:**
Chick-fil-A, Inc.	Jennifer Daw, 404.305.4834

Project Location: The 0.95-acre site is located at the southern corner of the intersection of West Almond Avenue and South Main Street, at 202 South Main Street, Assessor's Parcel Number (APN) 390-264-28.

Existing General Plan Designation:	**Existing Zoning Classification:**
The *City of Orange General Plan Land Use Map* designates the project site as Neighborhood Mixed Use (NMIX).	The *City of Orange Zoning Code* zones the project site as Neighborhood Mixed Use (NMU-24).

EXISTING SETTING

Regional Setting: Regionally, the site is located approximately 0.50-mile north of State Route 22 (SR-22), and 0.65-mile east of State Route 57 (SR-57).

Existing Site Conditions:
(Describe the project site)

The project site consists of one, single story 8,579 square foot commercial structure, approximately 70 surface parking spaces and associated parking lot lighting and landscaping features. The site is accessed via a two-way driveway on West Almond Avenue and a two-way driveway on South Main Street. A restricted access (roped-off), one-way egress driveway is also located on West Almond Avenue.

Surrounding Land Uses:
(Describe the land uses and characteristics of the surrounding area)

Surrounding uses primarily consist of commercial and residential uses to the north, east, and west, and commercial uses to the south. The site is separated from an established residential neighborhood to the west by a single commercial property that is home to a pre-school. Refer to Section 2.1, *Project Location and Setting*.

PROJECT DESCRIPTION

(Describe the components of the project including proposed physical improvements, construction, operations, phasing, and City approvals required to accommodate the project).

The project involves the demolition of the existing 8,579 square-foot structure and the construction of a one-story, 4,563 square-foot Chick-fil-A restaurant building with a two-lane drive-thru and associated surface parking, landscaping, and utilities. Construction of all project components is anticipated to occur over a six-month period (in one phase), commencing in May 2019 and being completed by December 2019. The project would be subject to various City permits and approvals, including, but not limited to: General Plan Amendment GPA 2018-0002; Zone Change ZC No. 1287-18; Environmental Review ENV No. 1858-18; Conditional Use Permit No. 3044-17; Design Review No. 4909-17; Minor Site Plan Review No. 0904-17; and Tree Removal Permit.

Other Public Agencies Whose Approval is Required (Responsible or Trustee Agencies): (Identify other public agencies whose approval is required for project implementation and agencies with jurisdiction over affected natural resources)
The project would also be subject to various permits and approvals from other public agencies, including, but not limited to, the Orange County Flood Control District (OCFSD) Municipal Stormwater Permit.
Scheduled Public Meetings or Hearings: (Describe the date, time and location for all scheduled public meetings and hearings)
To be determined, separate noticing will be given for public hearings.

1.0 INTRODUCTION

The proposed Chick-fil-A Drive-Thru Restaurant (project) is located at 202 South Main Street in the City of Orange (City), California. The City is situated in central Orange County, approximately 30 miles southeast of Downtown Los Angeles. The 0.95-acre site is located in at the southwest corner of the intersection of West Almond Avenue and South Main Street. The project involves the demolition of an existing 8,579 square-foot structure and the construction of a one-story, 4,563 square-foot Chick-fil-A restaurant building with a double drive-thru lane and associated surface parking, landscaping, and utilities.

The City of Orange has determined that the project is subject to the guidelines and regulations of the California Environmental Quality Act (CEQA) due to the need for a General Plan Amendment and Zone Change, among other entitlements, to implement the project, and possible related environmental impacts. This Initial Study/Mitigated Negative Declaration (IS/MND) addresses the direct, indirect, and cumulative environmental effects associated with the project, as proposed.

1.1 STATUTORY AUTHORITY AND REQUIREMENTS

In accordance with CEQA (Statute Sections 21000-21177) and pursuant to the CEQA Guidelines (Section 15063 of Title 14 of the California Code of Regulations [CCR]), the City of Orange, acting in the capacity of Lead Agency pursuant to CEQA Guidelines Section 15367, is required to determine whether the proposed project would have a significant environmental impact. If the Lead Agency finds that there is no evidence that the project, either as proposed or as modified to include the mitigation measures identified in the Initial Study, may cause a significant effect on the environment, the Lead Agency shall find that the proposed project would not have a significant effect on the environment and shall prepare a Negative Declaration (or Mitigated Negative Declaration) for that project. Such determination can be made, by the City of Orange, only if "there is no substantial evidence in light of the whole record" that such impacts may occur (Statute Section 21080[c]).

This IS/MND, which is ultimately adopted by the City of Orange in accordance with CEQA, is intended as an informational document undertaken to provide an environmental basis for subsequent discretionary actions upon the project. The resulting documentation is not, however, a policy document, and its adoption neither presupposes nor mandates any actions on the part of those agencies from whom permits and other discretionary approvals would be required.

1.2 PURPOSE

Section 15063 of the CEQA Guidelines identifies specific disclosure requirements for inclusion in an Initial Study. Pursuant to those requirements, an Initial Study shall include:

- A description of the project, including the location of the project.
- Identification of the environmental setting.
- Identification of environmental effects by use of a checklist, matrix, or other method, provided that entries on a checklist or other form are briefly explained to indicate that there is some evidence to support the entries. The brief explanation may be either through a narrative or a reference to other information source such as an attached map,

photographs, or an earlier EIR or negative declaration. A reference to another document should include, where appropriate, a citation to the page or pages where the information is found.

- A discussion of the ways to mitigate the significant effects identified, if any.
- An examination of whether the project would be consistent with existing zoning, plans, and other applicable land use controls.
- The name of the person or persons who prepared or participated in the Initial Study.

1.3 INCORPORATION BY REFERENCE

The references outlined below were utilized during preparation of this IS/MND. The documents are available for review at Orange City Hall, located at 300 East Chapman Avenue, Orange, California, 92866.

- *City of Orange General Plan (March 2010, with 2015 amendments)*. The purpose of the *City of Orange General Plan* (General Plan), adopted March 9, 2010, is to anticipate and plan for the physical development of the City, and any land outside its boundaries which bears relation to its planning. The General Plan is organized into 11 elements: Land Use; Circulation and Mobility; Growth Management; Natural Resources; Public Safety; Noise; Cultural Resources and Historic Preservation; Infrastructure; Urban Design; Economic Development; and, Housing. Each General Plan element presents an overview of its scope, summary of conditions and planning issues, goals, and policies.

- City of Orange General Plan Program Environmental Impact Report (March 2010). The City of Orange General Plan Program Environmental Impact Report (General Plan PEIR), dated March 2010, considered the environmental impacts for the General Plan. This document was prepared as a Program EIR, which is intended to facilitate consideration of broad policy directions, program-level alternatives, and mitigation measures consistent with the level of detail available for the General Plan. The General Plan PEIR concluded significant and unavoidable impacts regarding air quality, transportation/traffic, and climate change.

- *City of Orange Local CEQA Guidelines (April 2006)*. The *City of Orange Local CEQA Guidelines* (City CEQA Thresholds Guide) was prepared for the review of projects, and preparations of environmental documents pursuant to CEQA. CEQA requires the analysis of discretionary projects to disclose their potential environmental effects. The City CEQA Thresholds Guide is a tool that compiles information that is useful in the preparation of environmental documents, and improves the level of consistency, predictability, and objectivity of the City's environmental documents. This document provides assistance in identifying historical resources and employs a combination of State CEQA Guidelines and local rules and regulations when determining impacts to historical resources.

- *City of Orange Municipal Code, adopted in 1995 with amendments through January 2018*. The *City of Orange Municipal Code* (Municipal Code) consists of regulatory, penal, and administrative ordinances of the City of Orange. It is the method the City uses to implement control of land uses, in accordance with General Plan goals and policies.

- *City of Orange Design Standards for the Amendment to the Southwest Project Area (adopted June 1988 and amended September 2013, and March 2018).* The Design Standards for the Amendment of the Southwest Project Area (Southwest Design Standards) purpose is to coordinate individual buildings or projects, which were often constructed at different times, into a harmonious whole and to improve the aesthetic environment. The Southwest Design Standards are intended to foster good design, to encourage reinvestment in the Southwest Study area, and to improve the area's economic vitality. The Southwest Design Guidelines are applicable to new development within Southwest Design Standards plan area, for which Design Review with the Planning Department is a mandatory step in the approval process.

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2.0 PROJECT DESCRIPTION

2.1 PROJECT LOCATION AND SETTING

PROJECT LOCATION

The proposed Chick-fil-A Drive-Thru Restaurant (project) is located at 202 South Main Street, in the City of Orange (City), County of Orange, California; refer to Exhibit 1, *Regional Vicinity*. Regionally, the site is located approximately 0.50-mile north of State Route 22 (SR-22), and 0.65-mile east of State Route 57 (SR-57). Locally, the site is located at the southwestern corner of the intersection of West Almond Avenue and South Main Street; refer to Exhibit 2-2, *Site Vicinity*. The project encompasses approximately 0.95-acre and is located on Assessor's Parcel Number (APN) 390-264-28.

EXISTING CONDITIONS

The project site consists of one, 8,579-square foot commercial structure (approximately 15 feet in height), approximately 70 surface parking spaces and associated parking lot lighting and landscaping features. The site is accessed via a two-way driveway on West Almond Avenue and a two-way driveway on South Main Street. A restricted access (roped-off), one-way egress driveway is also located on West Almond Avenue. Surrounding uses primarily consist of commercial and residential uses to the north, east, and west, and commercial uses to the south. The site is separated from an established residential neighborhood to the west by a single commercial property that is home to a pre-school. Table 2-1, *Surrounding Land Uses*, describes the adjacent development.

EXISTING ZONING AND GENERAL PLAN

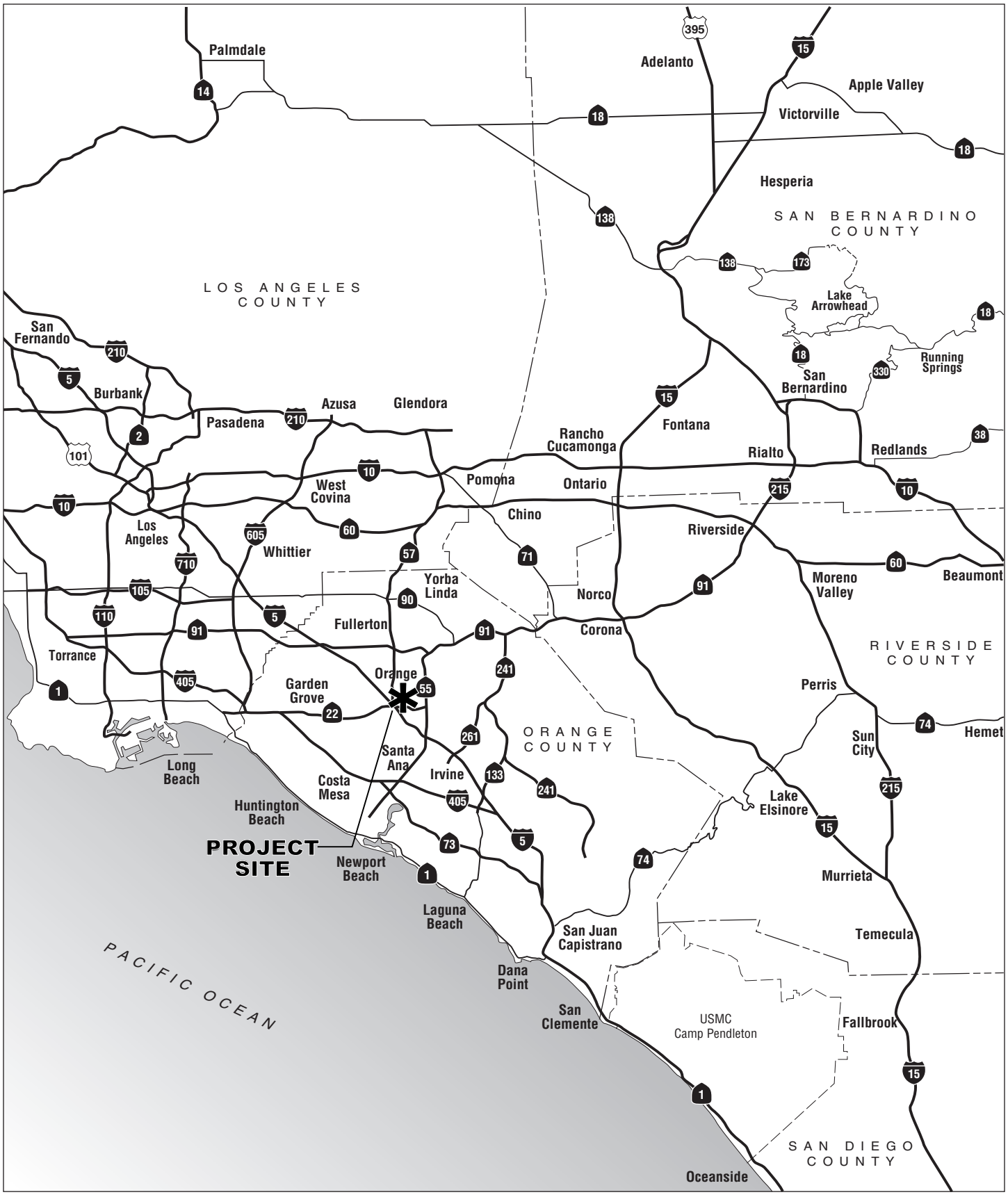
The General Plan designates the project site as Neighborhood Mixed Use (NMIX), and the project site is zoned Neighborhood Mixed Use (NMU-24). The density range for NMU-24 is 16 to 24 dwelling units/acre (DU/AC) for residential development and minimum 1.0 to maximum 1.5 floor to area ratio (FAR) for commercial development. The NMU-24 zoning district is intended to provide local- and neighborhood-supporting mixed-use activity centers and corridors. Along Main Street, residential uses and uses supportive of a medical-related corridor are encouraged, and walkability and pedestrian-oriented development are key considerations. The project site is also subject to the *Design Standards for the Amendment to the Southwest Project Area*, dated June 1988 and amended most recently in March 2018.

Table 2-1
Surrounding Land Uses

Direction	General Plan Designation[1]	Zoning[2]	Existing Land Use
North	General Commercial Max. 1.0 (GC) Low Medium Residential 6 – 15 DU/AC (LMDR) Low Density Residential 2 – 6 DU/AC (LDR)	Commercial (C3) Residential Multiple Family (R-3) Single-Family Residential 6,000 s.f. (R1-6)	Medical office uses; single-family residential
East	Neighborhood Mixed Use (Max. 24 DU/Ac. 1.0-1.5 FAR) (NMIX) Low Medium Residential 6 – 15 DU/AC (LMDR)	Neighborhood Mixed Use (NMU-24) Multiple Family (R-3)	Medical and professional office uses
South	Neighborhood Mixed Use (Max. 24 DU/AC, 1.0-1.5 FAR) (NMIX)	NMU-24	Medical office uses
West	Neighborhood Mixed Use (Mac. 24 DU/AC, 1.0-1.5 FAR) (NMIX)	NMU-24	Institutional use (pre-school); multi-family residential uses

Notes:

1. The following correspond to the City's General Plan Designations:
   GC = General Commercial (the GC designation includes a wide range of retail and service commercial uses and professional offices; regional shopping centers, mid-rise office projects, corridor shopping districts, and neighborhood corner stores are permitted uses)
   LMDR = Low Medium Density Residential (the LMDR designation includes small lot or zero lot line single-family subdivisions, duplexes and mobile home parks, as well as lower intensity apartment and condominium complexes)
   LDR = Low Density Residential (the LDR designation is the conventional single-family residential development characterized by individual single-family homes constructed in subdivisions, or by custom units built on individual lots)
   NMIX = Neighborhood Mixed-Use (the NMIX is the local and neighborhood supporting mixed-use activity centers and corridors; commercial retail is encouraged to be the primary use on the ground floor, and housing and office uses are also encouraged)
2. The following correspond to the City's Zoning:
   C3 = Commercial Zone (the C3 district provides an area where retail sales and services along with related assembling, processing, and manufacturing can be carried out)
   R1-6 = Residential Single-Family (the R1-6 district is for single-family residences with a minimum lot area of 6,000 square feet)
   R-3 = Residential Multiple-Family (the R-3 zone is the multiple-family residential district which allows apartments, condominiums, and townhomes, for the purpose of providing a minimum ground area coverage and maximum of open space within higher density development)
   NMU-24 = Neighborhood Mixed Use (the NMU-24 DU/AC zoning district is intended to provide local- and neighborhood-supporting mixed-use activity centers and corridors; commercial retail uses are primary uses allowed on the ground floor, along with professional office and residential uses integrated or as separate free-standing uses)



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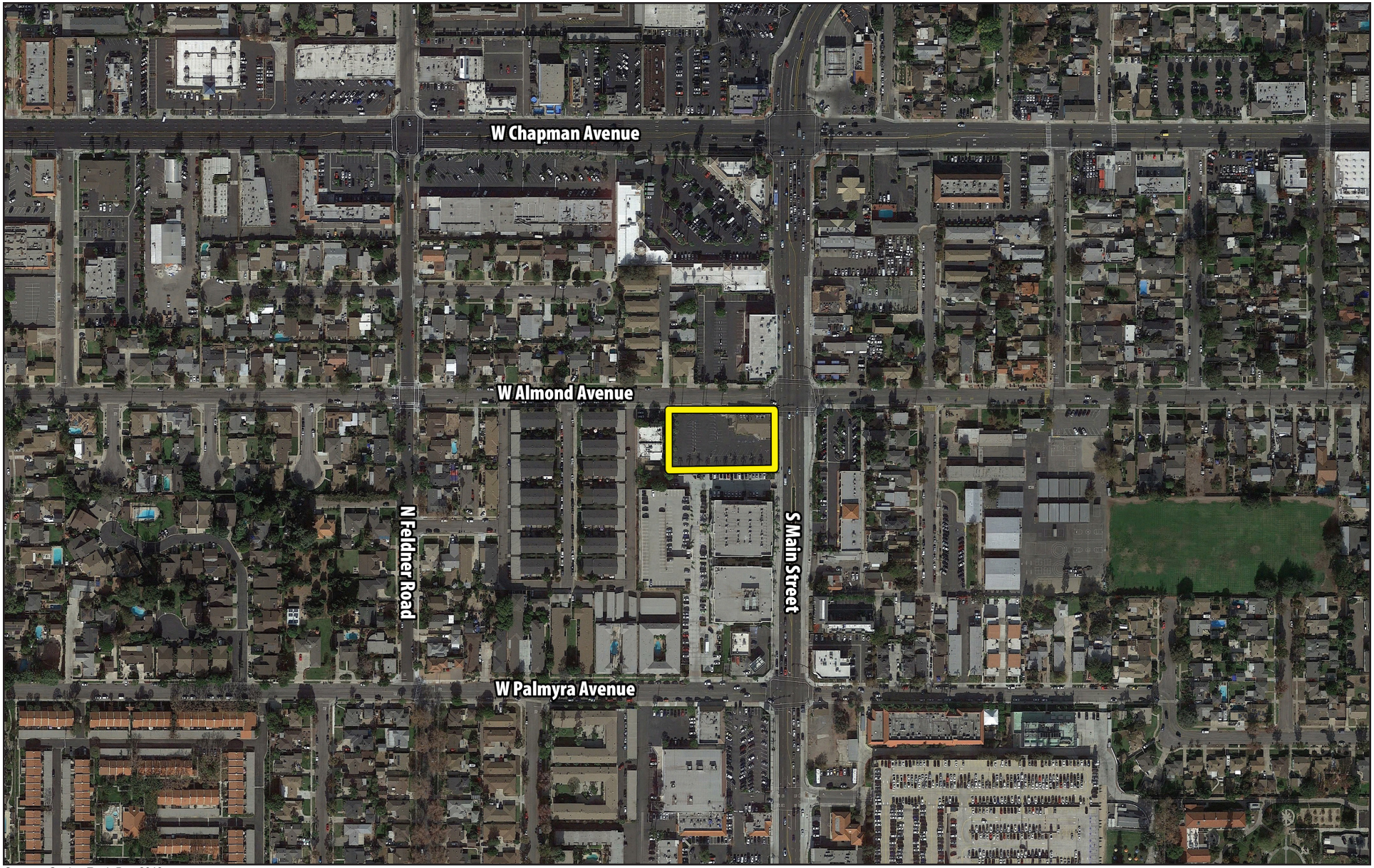
Michael Baker INTERNATIONAL

08/19 I JN 166516

PROPOSED CHICK-FIL-A DRIVE-THRU RESTAURANT
INITIAL STUDY/MITIGATED NEGATIVE DECLARATION NO. 1858-18

Regional Vicinity

Exhibit 2-1



Source: Goolge Earth Pro, 2018.
- Project Site

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PROPOSED CHICK-FIL-A DRIVE-THRU RESTAURANT
INITIAL STUDY/MITIGATED NEGATIVE DECLARATION NO. 1858-18

Site Vicinity

Exhibit 2-2

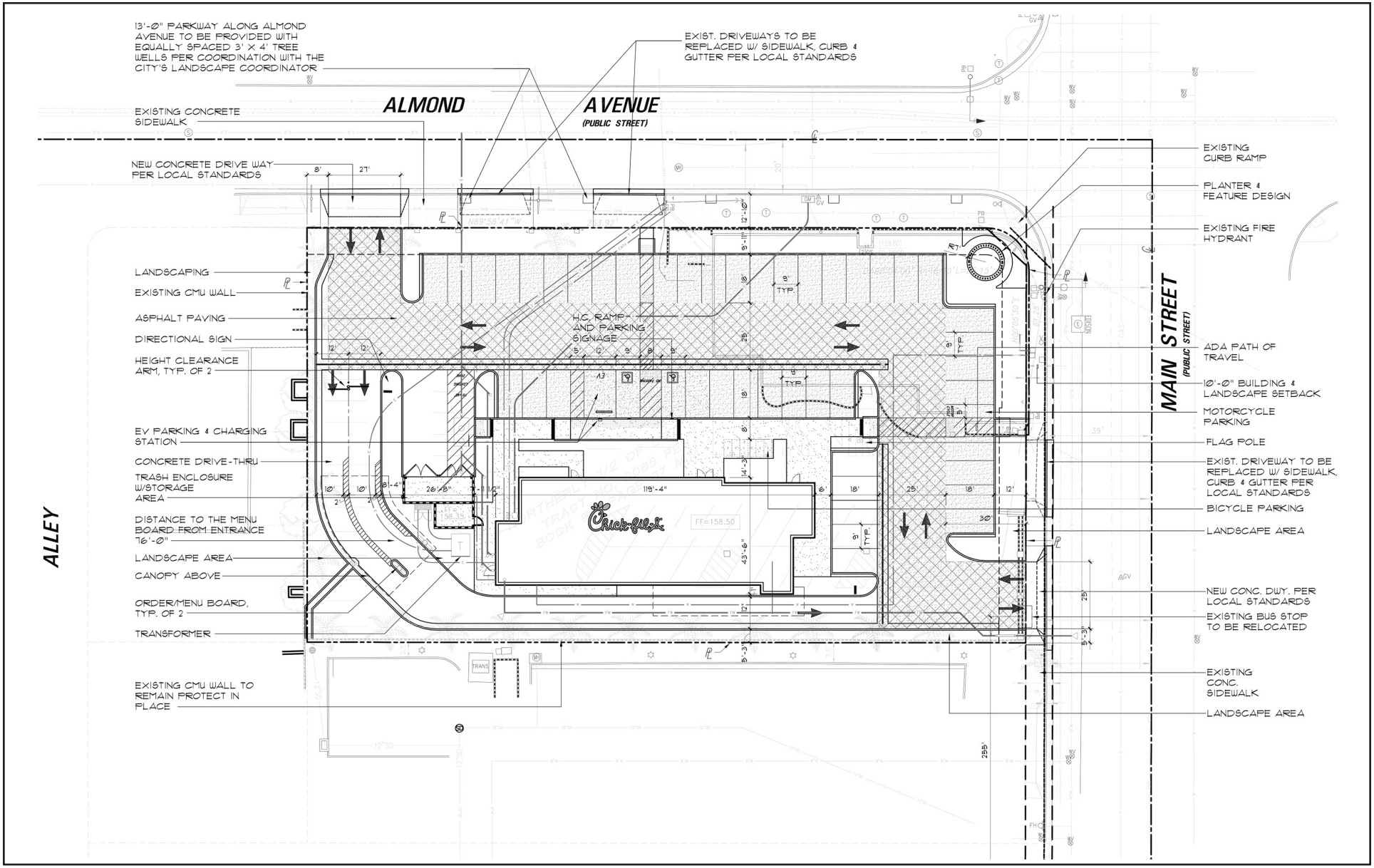
2.2 PROPOSED PROJECT

The proposed project consists of demolition of the existing 8,579 square-foot structure and surface parking lot, and constructing a new one story, 4,563 square-foot Chick-fil-A restaurant with a two-lane drive-thru; refer to Exhibit 2-3, *Site Plan*. The project proposes a General Plan Amendment to change the designation from Neighborhood Mixed Use (NMIX) to General Commercial (CG), and a Zone Change from Neighborhood Mixed Use (NMU-24) to General Business (C-2). In 2010, in order to encourage the transition of the south Main Street Corridor to a medically-oriented district with opportunities for hospital-related workforce housing and to support property reinvestment, the City re-designated the site and surrounding properties from General Commercial (CG) to Neighborhood Mixed Use (NMIX), with corresponding zoning. While the zoning allows for drive-thru restaurants, it establishes special design requirements for fast food restaurants in the NMU-24 zone. Additionally, the NMIX minimum FAR is intended to support higher intensity development consistent with an urban mixed-use district. Because the operational needs of Chick-fil-A are not in alignment with either the General Plan or Zoning requirements for the site, particularly regarding development intensity and mixed-use related design standards, the project proposes to re-designate the parcel back to the pre-2010 land use and zoning designations for the site. In addition to the General Plan Amendment and Zone Change, the project would require a Conditional Use Permit.

The restaurant would have a traditional layout with an indoor dining area (80 seats), serving/ordering area, kitchen area, service area, and an indoor play area for children. No outdoor seating is proposed. The kitchen area includes a freezer, a cooler, staked convention ovens, and preparation and finishing tables. The restaurant would also include office space for managerial purposes, a multi-purpose room, and restrooms. The proposed hours of operation are as follows:

- Monday through Saturday: 6:00 a.m. to midnight; and
- Sunday: closed.

The project would provide 48 vehicle parking spaces (46 standard spaces [including one electric vehicle space] and two handicap spaces), motorcycle parking, and parking storage for up to 12 bicycles at the front of the building for convenience and safety. The restaurant would include two 12-foot drive-thru lanes (that merge into one 12-foot lane) with directional signage located at the northwestern portion of the project site. The proposed drive-thru lane would wrap around the western and southern sides of the proposed building, and vehicles would exit the drive-thru lane at the southeast corner of the building. The drive-thru would provide stacking for up to 17 vehicles from the entry to the pick-up window with additional overflow storage for up to 20 cars on-site; refer to Exhibit 4.16-3, *Circulation Plan*. During peak operating times, should queuing occur beyond the available storage within the drive-thru lanes (17 vehicles), staff would be required to go out to the drive-thru lanes to assist with ordering via Chick-fil-A's iPad ordering system. Based on data from Chick-fil-A's other comparable stores, the iPad ordering system increases the drive-thru speed of service by 30 percent than the typical speaker box. It is acknowledged that the iPad ordering system is always used during peak hours of 11:30 am to 1:30 pm and any additional time when needed. Chick-fil-A staff would also monitor the Almond Street access and direct traffic, accordingly, to ensure that any vehicle queueing beyond the drive-thru lane will not block vehicular circulation within the parking lot. Should the drive-thru queue extend onto Almond Avenue, Chick-fil-A staff would direct the customer to utilize the Main Street access to enter the drive-thru lane. Chick-fil-A management would also require staff to park in the stalls closest to the drive-through entrance along Almond Avenue. This would allow for stacking, if needed.



Source: CRHO Archicture Interior Planning, March 6, 2018.

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PROPOSED CHICK-FIL-A DRIVE-THRU RESTAURANT
INITIAL STUDY/MITIGATED NEGATIVE DECLARATION NO. 1858-18

Site Plan

Exhibit 2-3

The project would remove the existing driveways on West Almond Avenue and South Main Street to construct one unsignalized, full-access driveway located along Almond Avenue (Project Driveway No. 1) and one unsignalized, right-turn in/right-turn out only driveway located along Main Street (Project Driveway No. 2). Project Driveway No. 1 would be located approximately 25 feet west of its existing location along Almond Avenue and Project Driveway No. 2 would be located approximately 14 feet south of its existing location along Main Street.

The project would connect to existing sewer facilities in West Almond Avenue and existing water (domestic, irrigation, and fire service lines) in South Main Street. Dry utilities (electric, cable, telephone, and gas) would connect to existing lines in West Almond Avenue, and a transformer is proposed on the western portion of the project site, as depicted on Exhibit 2-3. Stormwater would flow toward three 24- by 24-inch grated inlets on-site that would then flow into an underground infiltration system. Stormwater flows would be filtered of debris and trash on-site. For overflows, a bypass system would be installed that would outlet to an existing 12-inch storm drain at the southwest portion of the project site, which would then flow off-site, where flows would discharge into the City's storm drain system via an existing catch basin. Curb and gutter improvements are proposed off-site along the eastern portion of the project site along South Main Street. In consultation with the Orange County Transportation Authority (OCTA)[1], the existing bus stop (situated just north of the existing on-site driveway at South Main Street) would be relocated approximately 100 feet to the south. Similar signage and bench would be installed consistent with OCTA requirements.

Striped pedestrian pathways are proposed from Main Street and Almond Avenue to the Chick-fil-A restaurant building to provide pedestrian connectivity from the two adjacent roadways and surrounding commercial and residential uses. The pedestrian pathways, bicycle parking storage, and OCTA bus stop along Main Street would provide multimodal transportation opportunities to and from the project site within the NMIX designated area.

Ornamental landscaping would be installed along the north and west portions of the restaurant building, and along the drive-thru pathway; refer to Exhibit 2-4, *Landscape Concept Plan*. Additional landscaping and trees would be planted along the project perimeter. Ten of the 18 existing perimeter trees (queen palms and fan palms) would remain on-site, eight existing palms would be removed. An additional palm tree along South Main Street would be removed as requested by OCTA to provide clear line of sight for bus operators to clearly see passengers waiting at the proposed relocated bus stop. The existing concrete masonry wall would remain in place along the southern and western boundaries of the project site. The total landscape area would be 8,363 square feet. The project would also include a landmark feature as a large planter at the northeast corner of the site with 'City of Orange' lettering to promote community identity and provide a streetscape enhancement at the Main Street and Almond Avenue intersection.

The project would be designed with various architectural building elements at a maximum height of approximately 22 feet, including a brick veneer, dark bronze parapets, awnings and other metal storefront features, and "Powerwall White" stucco with a sand medium finish, along with restaurant identification signage; refer to Exhibit 2-5a and Exhibit 2-5b, *Building Elevations*.

[1] Written Correspondence: Kyle Poff, Stops and Zones Analyst, Orange County Transportation Authority, dated May 10, 2019; refer to Appendix 8.8, *OCTA Correspondence*.

PROJECT PHASING AND CONSTRUCTION

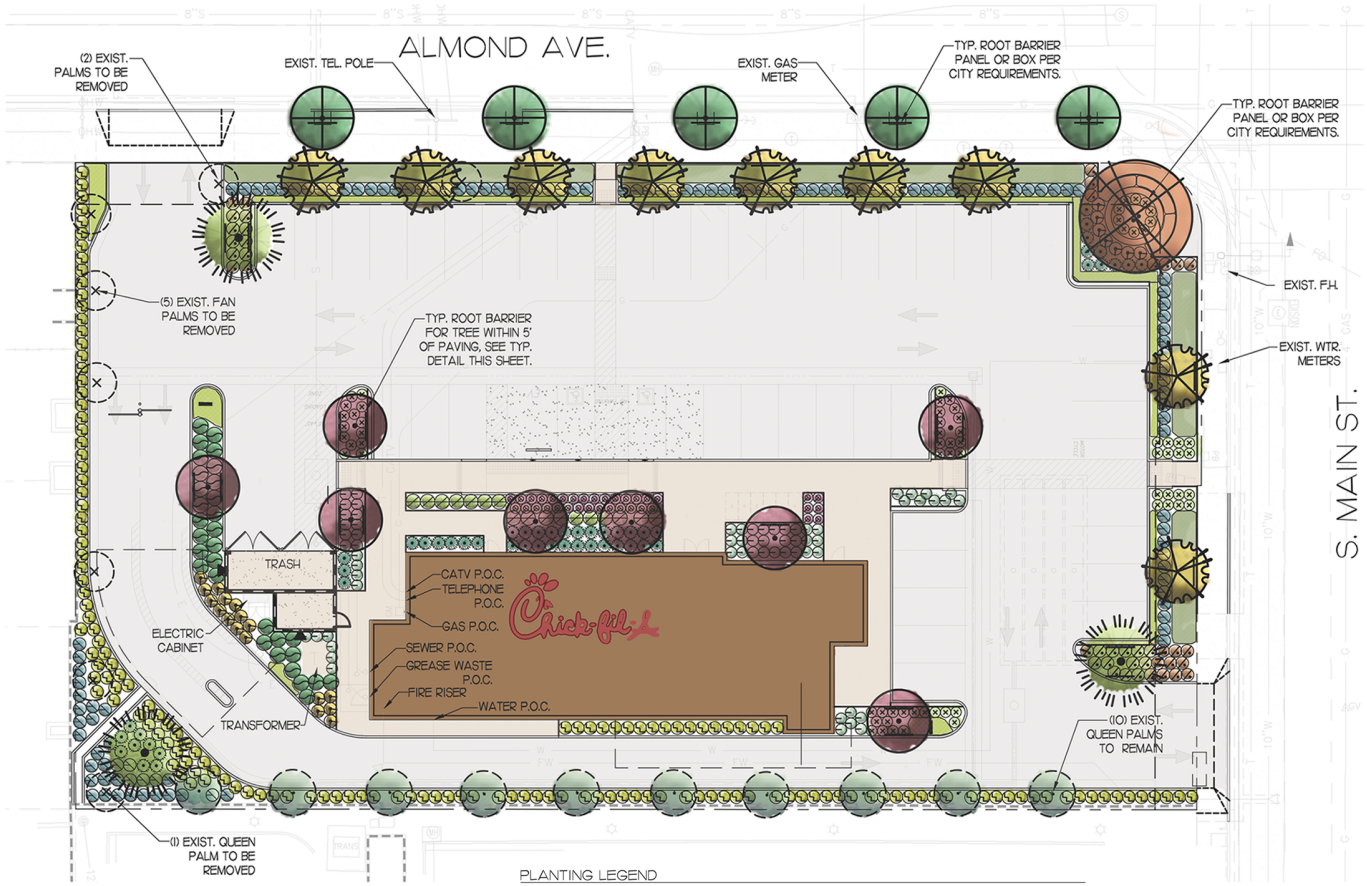
Construction of all project components is anticipated to occur over a six-month period (in one phase), commencing in May 2020 and being completed by December 2020.

2.3 DISCRETIONARY ACTIONS

The City of Orange is the Lead Agency under CEQA and has discretionary authority over the proposed project. The project would be subject to various City permits and approvals, including, but not limited to:

- General Plan Amendment GPA 2018-0002;
- Zone Change ZC No. 1287-18;
- Environmental Review ENV No. 1858-18;
- Conditional Use Permit No. 3044-17;
- Design Review No. 4909-17;
- Minor Site Plan Review No. 0904-17; and
- Tree Removal Permit.

The project would also require administrative approvals from the City for issuance of grading, building, and occupancy permits as well as connection permits from utility providers. Additionally, the project would require OCTA approval to relocate the existing bus stop along South Main Street approximately 100 feet to the south.



TREE REQUIREMENT NOTE:

PER CITY OF ORANGE MUNICIPAL CODE 17.19.160 LANDSCAPING, PARKING LOT TREES ARE TO BE PROVIDED AT THE RATE OF (1) 24" BOX TREE PER (4) PARKING SPACED:

PARKING SPACES: 48
TREES REQUIRED: 12
NEW TREES PROVIDED AT 24" BOX SIZE: 14
NEW TREE PROVIDED AT 36" BOX SIZE: 1

LANDSCAPE CALCULATIONS

PROPOSED TURF AREA	0 S.F.
CFA LANDSCAPE AREA	8,363 S.F.
TOTAL LANDSCAPE AREA	8,363 S.F.

NOTE:
ALL LANDSCAPING AND IRRIGATION SHALL COMPLY WITH CITY OF ORANGE LANDSCAPE STANDARDS AND SPECIFICATIONS.

PLANTING LEGEND

SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	QTY.	REMARKS	WUCOLS REGION 3
	TREES					
×	EXISTING PALM TO BE REMOVED			8	APPROX. LOCATION	
	EXISTING QUEEN PALM TO REMAIN			10	APPROX. LOCATION	
	ARBUTUS 'MARINA'	STRAWBERRY TREE	24" BOX	9	STANDARD	L
	CERCIS OCCIDENTALIS	WESTERN REDBUD	24" BOX	8	STANDARD	L
	MAGNOLIA GRANDIFLORA 'LITTLE GEM' STREET TREE-ALMOND AVE.	SO. MAGNOLIA	24" BOX	5	STANDARD, IN SIDEWALK PLANTERS	M
	PARKINSONIA 'DESERT MUSEUM'	PALO VERDE	36" BOX	1	MULTI	L
	QUERCUS ILEX	HOLLY OAK	24" BOX	3	STANDARD	L

SHRUBS						
LEUCOPHYLLUM ZYGOPHYLLUM 'CIMARRON'	BLUE RANGER	5 GAL.	123	3'-0" O.C.		L
DIANELLA T. 'VARIEGATA'	VARIEGATED FLAX LILY	5 GAL.	63	2'-6" O.C.		M
MUHLENBERGIA CAPILLARIS	PINK MUHLY	5 GAL.	91	3'-6" O.C.		M
FESTUCA MAIREI	MAIRE'S FESCUE	5 GAL.	158	3'-0" O.C.		M
AGAVE DESMETIANA	AGAVE	5 GAL.	42	3'-0" O.C.		L
ASPARAGUS DENSIFLORUS 'MYERS'	FOXTAIL FERN	5 GAL.	35	2'-6" O.C.		M
YUCCA FILAMENTOSA	SPANISH DAGGER	5 GAL.	24	AS SHOWN		L
ALOE STRIATA	ALOE	1 GAL.	71	2'-6" O.C.		L
PHORMIUM 'AMAZING RED'	NEW ZEALAND FLAX	5 GAL.	30	3'-6" O.C.		M
LEYMUS CONDENSATUS 'CANYON PRINCE'	CANYON PRINCE WILD RYE	5 GAL.	53	3'-0" O.C.		L
SENECIO SERPENS	BLUE CHALKSTICKS	1 GAL.	1,400 S.F.	1'-6" O.C.		L
DIANELLA REVOLUTA 'LITTLE REV'	LITTLE REV FLAX LILY	1 GAL.	612 S.F.	1'-6" O.C.		M
VINES						
JASMINUM HUMILE	ITALIAN JASMINE	15 GAL.	2	REMOVE FROM STAKE ATTACH TO WALL		M

Source: CRHO Archicture Interior Planning, 2018.

NOT TO SCALE

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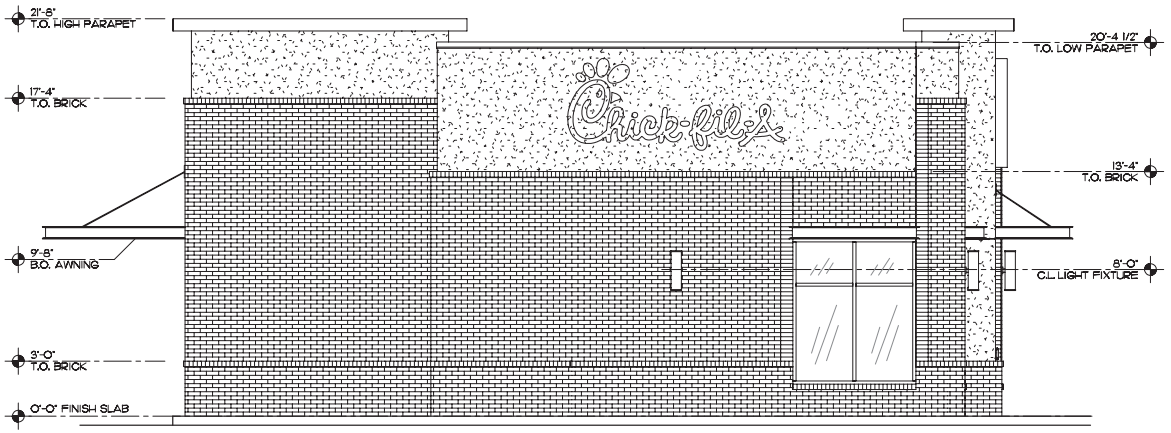
08/19 | JN 166516

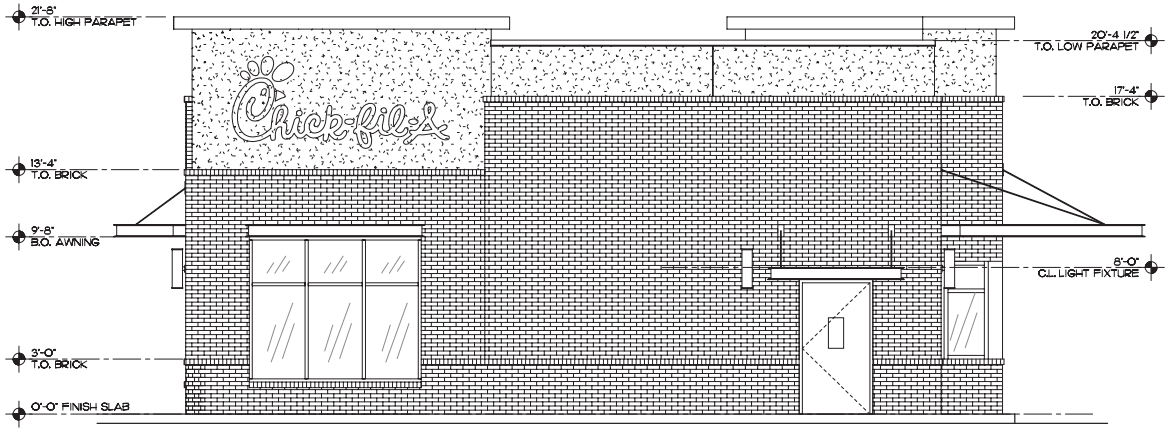
PROPOSED CHICK-FIL-A DRIVE-THRU RESTAURANT
INITIAL STUDY/MITIGATED NEGATIVE DECLARATION NO. 1858-18

Landscape Concept Plan

Exhibit 2-4



1 **EAST ELEVATION**
1/4" 1'-0"



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

Source: CRHO Archicture Interior Planning, March 13, 2018.

NOT TO SCALE

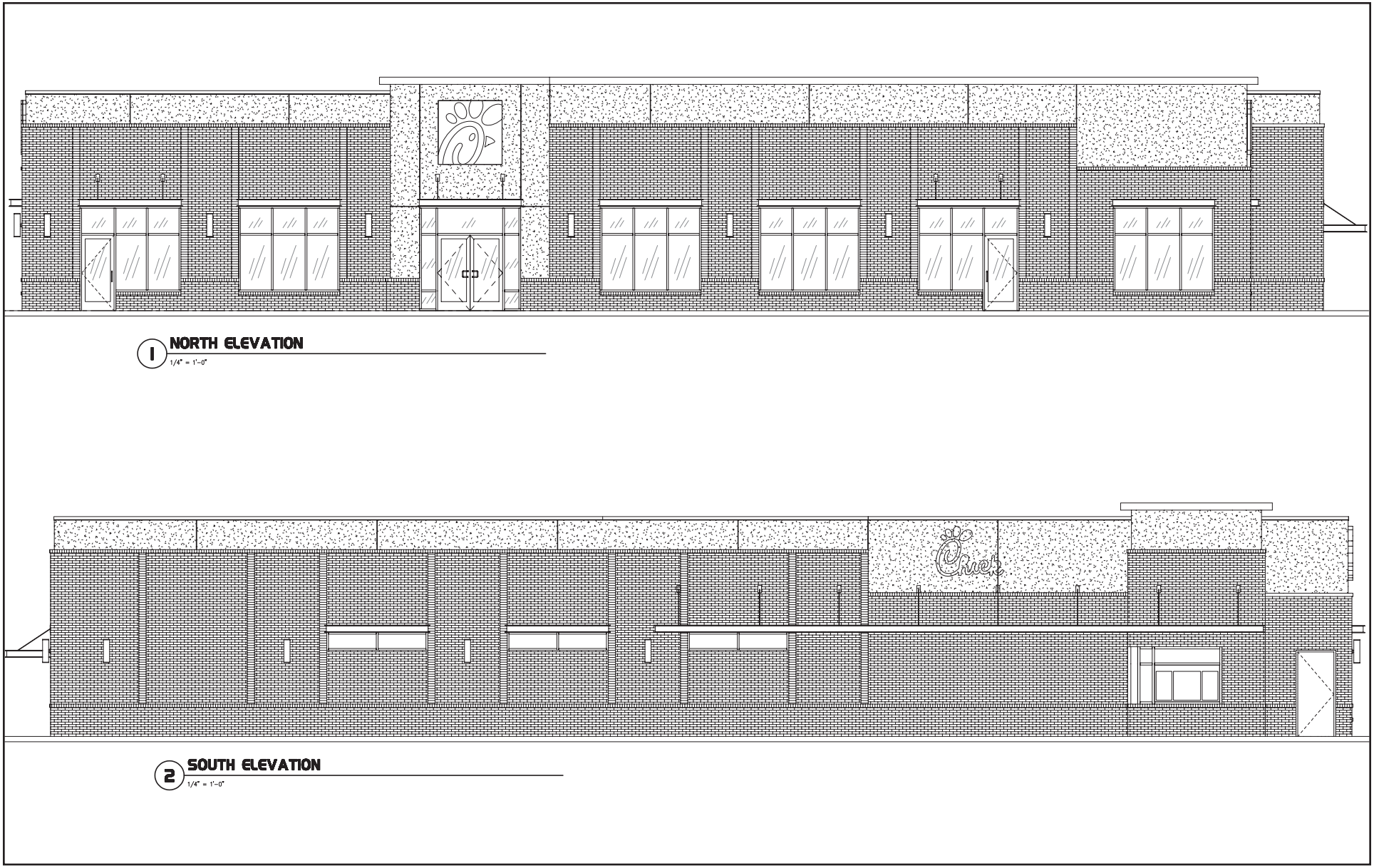
Michael Baker INTERNATIONAL

08/19 I JN 166516

PROPOSED CHICK-FIL-A DRIVE-THRU RESTAURANT
INITIAL STUDY/MITIGATED NEGATIVE DECLARATION NO. 1858-18

Building Elevations

Exhibit 2-5a



Source: CRHO Archicture Interior Planning, March 13, 2018.

NOT TO SCALE

Michael Baker INTERNATIONAL

08/19 | JN 166516

PROPOSED CHICK-FIL-A DRIVE-THRU RESTAURANT
INITIAL STUDY/MITIGATED NEGATIVE DECLARATION NO. 1858-18

Building Elevations

Exhibit 2-5b

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3.0 INITIAL STUDY CHECKLIST

3.1 BACKGROUND

1. Project Title: Proposed Chick-fil-A Drive-Thru Restaurant
2. Lead Agency Name and Address: City of Orange 300 East Chapman Avenue Orange, California 92866
3. Contact Person and Phone Number: Mr. Robert Garcia, Senior Planner 714.744.7231
4. Project Location: The 0.95-acre site is located at the southern corner of the intersection of West Almond Avenue and South Main Street, at 202 South Main Street, Assessor's Parcel Number (APN) 390-264-28.
5. Project Sponsor's Name and Address: Ms. Jennifer M. Daw Design & Construction, Chick-fil-A, Inc. 15635 Alton Parkway, Suite 350 Irvine, California 92618
6. General Plan Designation: The *City of Orange General Plan Land Use Map* designates the project site as Neighborhood Mixed Use (NMIX).
7. Zoning: The *City of Orange Zoning Code* zones the project site as Neighborhood Mixed Use (NMU-24).
8. Description of the Project: The project involves the demolition of an existing 8,579 square-foot structure and the construction of a one-story, 4,563 square-foot Chick-fil-A restaurant building with two lane drive-thru and associated surface parking, landscaping, and utilities. Refer to Section 2.2, *Proposed Project*.
9. Surrounding Land Uses and Setting: The project site is surrounded by commercial and residential uses. Refer to Section 2.1, *Project Location and Setting*.
10. Other public agencies whose approval is required (e.g., permits, financing approval or participation agreement): The project would be subject to various City permits and approvals, including, but not limited to: General Plan Amendment No. 2018-0002; Zone Change No. 1287-18; Conditional Use Permit No. 3044-17; Design Review No. 4909-17; Minor Site Plan Review No. 0904-17; Environmental Document No. 1858-18; and Tree Removal Permit.

3.2 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" or "Potentially Significant Unless Mitigated," as indicated by the checklist on the following pages.

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

3.3 LEAD AGENCY DETERMINATION

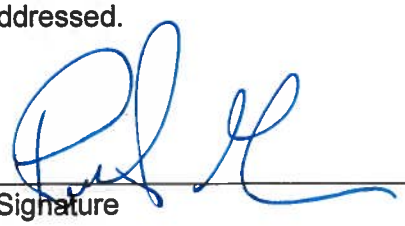
On the basis of this initial evaluation:

I find that the proposed use COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

I find that although the proposal could have a significant effect on the environment, there will not be a significant effect in this case because the mitigation measures described in Section 4.0 have been added. A MITIGATED NEGATIVE DECLARATION will be prepared. ✓

I find that the proposal MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

I find that the proposal MAY have a significant effect(s) 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, if the effect is a "potentially significant impact" or "potentially significant unless mitigated." An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.



Signature — City of Orange (Agency)

Robert Garcia (Printed Name) — August 15, 2019 (Date)

4.0 ENVIRONMENTAL ANALYSIS

The following is a discussion of potential project impacts as identified in the Initial Study.

4.1 AESTHETICS

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

a) Have a substantial adverse effect on a scenic vista?

No Impact. According to the General Plan PEIR, scenic vistas are primarily located in the eastern portion of the City where topography and open space allow for far-reaching views. The project site is located within the western portion of the City, where topography is relatively flat and very little open space exists. The project site is not located a viewscape corridor as identified by General Plan PEIR Figure 5.1-1, *Viewscape Corridor*. Thus, implementation of the proposed project would not result in an impact to a scenic vista and no impacts would occur in his regard.

Mitigation Measures: No mitigation measures are required.

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

No Impact. Based on the California Department of Transportation's California Scenic Highway Mapping System, there are no designated or eligible State scenic highways located near the project site or within the City's limits.[1] The closest officially designated or eligible State scenic highway is State Route 91, which is located over 4.5 miles to the northeast of the project site. Thus, no impact would result in this regard.

Mitigation Measures: No mitigation measures are required.

[1] California Department of Transportation, *California Scenic Highway Mapping System: Orange County*, http://www.dot.ca.gov/hq/LandArch/16_livability/scenic_highways/, accessed May 9, 2018.

c) Substantially degrade the existing visual character or quality of the site and its surroundings?

Less Than Significant Impact. The project site is currently developed with a commercial structure (a former restaurant), surface parking, and associated parking lot lighting and landscaping features. Surrounding uses primarily consist of office uses and single-family residential to the north, neighborhood commercial uses to the east, medical office uses to the south, and institutional uses (pre-school) and multi-family residential uses to the west.

In 2010, in order to encourage the transition of the south Main Street Corridor to a medically-oriented district with opportunities for hospital-related workforce housing and to support property reinvestment, the City re-designated the project site and surrounding properties from General Commercial (CG) to Neighborhood Mixed Use (NMIX), with corresponding zoning from General Business (C-2) to Neighborhood Mixed Use (NMU-24). While the zoning allows for drive-thru restaurants, it establishes special design requirements for fast food restaurants in the NMU-24 zone. Because the operational needs of Chick-fil-A are not in alignment with either the General Plan or Zoning requirements for the site, particularly regarding development intensity and mixed-use related design standards, the project proposes to re-designate the parcel back to the pre-2010 land use and zoning designations for the site. A discussion of the project's short-term construction and long-term operational impacts on visual character/quality is included below.

SHORT-TERM CONSTRUCTION

Construction activities would be completed in a single phase over approximately six months. During this time, demolished building materials, graded surfaces, debris, construction equipment, and truck traffic would be visible from residents, commercial users, motorists, bicyclists, and pedestrians. The project's short-term construction impacts on visual character/quality would be temporary in nature and would cease upon construction completion. Therefore, it is concluded that short-term project construction would not substantially degrade the existing visual character or quality of the site and its surroundings.

LONG-TERM OPERATIONS

Although the project proposes a General Plan Amendment and Zone Change, the project would be consistent with the developed nature of the area, and would not degrade the existing visual character/quality of the project site or the surrounding vicinity. The proposed Chick-fil-A drive-thru restaurant facility would be designed with various architectural building elements at a maximum height of approximately 22 feet, including a brick veneer, dark bronze parapets, awnings, and other metal storefront features, along with restaurant identification signage; refer to Exhibit 2-5a and Exhibit 2-5b, *Building Elevations*. Ten of the 18 existing perimeter trees (queen palms and fan palms) would remain on-site, new ornamental trees would be planted, and the existing concrete masonry wall would remain in place along the southern and western boundaries of the project site. Ornamental landscaping would be installed along the north and west portions of the restaurant building, and along the drive-thru pathway and project perimeter; refer to Exhibit 2-4, *Landscape Concept Plan*. The project would also include a landmark feature as a large planter at the northeast corner of the site with 'City of Orange' lettering to promote community identity and provide a streetscape enhancement at the Main Street and Almond Avenue intersection.

Since the project, as proposed, would change the site's existing zoning from NMU-24 to C-2, the project's maximum building height, minimum setbacks, signage, landscaping, and other

development characteristics would be required to comply with the development regulations detailed in Municipal Code Chapter 17.18, *Commercial Districts*, for C-2 zone. The project would be consistent with the City of Orange zoning regulations for the C-2 zone; refer to Table 4.10-1, *City of Orange Zoning Code Consistency Analysis*. Similarly, the project would be required to comply with the maximum density allowed by the proposed GC General Plan land use designation. The project would result in a floor area ratio (FAR) of 0.11 FAR, which is consistent with the maximum 1.0 FAR allowed by the GC designation; refer to Table 4.10-1.

Pursuant to Municipal Code Section 17.18.240, *Southwest Redevelopment Project Area*, the project site is located within the Southwest Redevelopment Project Area and is subject to compliance with the City of Orange Redevelopment Agency's *Design Standards for the Amendment to the Southwest Project Area* (Southwest Design Standards), adopted June 1988 and recently amended in 2018. According to the Southwest Design Standards, the project site is located in the South Main/La Veta Thematic District, which has an urban contemporary theme.[2] The Southwest Design Standards include general design standards applicable to all development within the Southwest Project Area and specific standards for each thematic district. Table 4.10-2, *Southwest Project Area Design Standards Consistency Analysis*, analyzes the proposed project features to determine consistency with applicable Southwest Design Standards; refer to Section 4.10, *Land Use and Relevant Planning*. As concluded Table 4.10-2, the proposed project would be consistent with the Southwest Design Standards and would be verified through the City's site plan and design review process. Impacts would be less than significant in this regard.

Pursuant to Municipal Code Section 17.10.070, *Design Review*, the project's design, including its architectural features, landscape, signage, and secondary functional and accessory features, would be reviewed for approval through the City's Design Review process. This regulatory procedure would verify the conclusions of Table 4.10-2 to ensure the design, colors, and finish materials of the proposed project are consistent with the City's design guidelines and are compatible with development in the surrounding vicinity. Following conformance with the Municipal Code and the City's Design Review process, project implementation would not degrade the existing visual character or quality of the site and its surroundings, including the project's consistency with the South Main/La Veta Thematic District, and impacts in this regard would be less than significant.

Mitigation Measures: No mitigation measures are required.

d) Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?

Less Than Significant Impact. A potentially significant impact would occur if a new source of substantial light or glare causes an adverse effect on day or nighttime views. Light impacts are typically associated with the use of artificial light during the evening and nighttime hours. Glare may be a daytime occurrence caused by the reflection of sunlight or artificial light from highly polished surfaces, such as window glass and reflective cladding materials, and may interfere with the safe operation of a motor vehicle on adjacent streets. Daytime glare generation is common in urban areas and is typically associated with mid- to high-rise buildings with exterior façades largely or entirely comprising highly reflective glass or mirror-like materials. Nighttime glare is

[2] City of Orange Redevelopment Agency, *Design Standards for the Amendment to the Southwest Project Area*, June 1988, amended September 10, 2013 and March 13, 2018, https://www.cityoforange.org/DocumentCenter/View/6694/Southwest-Design-Standards---Amended-March-13-2018-1-of-65-PDF, accessed June 20, 2018.

primarily associated with bright point source lighting that contrasts with existing low ambient light conditions.

The proposed project is located within a developed area of the City. Existing lighting sources at the project site include nighttime security lighting from the on-site surface parking area. Additional sources of existing lighting include those emitted from surrounding land uses, street lights, and vehicle headlights. Daytime glare from the new building would be similar to that currently experienced on-site and in the surrounding area. New sources of lighting would include light from the proposed building's interior pass through windows and light from the building exterior such as lighting fixtures and illuminated signage. Existing parking lot lighting would be replaced with new fixtures. Project implementation would also introduce new employees and patrons within the project site which would result in additional vehicles and associated vehicular lighting sources (i.e., headlights).

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 receptors to the project site include residential uses located approximately 50 feet to the north and 108 feet to the west. A preschool facility is situated approximately 18 feet to the west of the project site. However, this facility does not operate during nighttime hours.

In conformance with Municipal Code Section 17.12.030, *Lighting*, all project lighting would be directed, controlled, screened, or shaded in such a manner as not to shine directly on surrounding premises. Municipal Code Section 17.20.030(b) includes lighting requirements to minimize glare and illumination (such as shielding, screening, or directional techniques). The project would also be subject to conformance with the building materials requirements required under the Southwest Design Standards, including avoidance of reflective/tinted glass or corrugated metal/plastic shingles; refer to Table 4.10-2. Pursuant to Municipal Code Section 17.10.070, *Design Review*, the project's design, including its lighting features, would be reviewed for approval through the City's Design Review process. With compliance with these existing regulations, project implementation would not create a new source of substantial light and glare which would adversely affect day or nighttime views in the area and impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

4.2 AGRICULTURE AND FOREST 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. In Determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and forest carbon measurement methodology provided by the California Air Resources Board. Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?				✓
b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?				✓
c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 122220(g)), timberland as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?				✓
d. Result in the loss of forest land or conversion of forest land to non-forest use?				✓
e. Involve other changes in the existing environment, which due to their location or nature, could result in conversion of Farmland to non-agricultural use or forest land to non-forest use?				✓

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

No Impact. The project site is not designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance.[1] The project site is zoned Neighborhood Mixed Use (NMU-24). Project implementation would replace an existing restaurant facility with a new restaurant and drive-thru facility. Thus, the project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use. No impact would occur in this regard.

Mitigation Measures: No mitigation measures are required.

[1] California Department of Conservation, *Farmland Mapping and Monitoring Program, California Important Farmland Finder*, https://maps.conservation.ca.gov/DLRP/CIFF/, accessed May 9, 2018.

b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?

No Impact. The project site is zoned NMU-24 and is not covered under an existing Williamson Act contract.[2] Thus, project implementation would not conflict with existing zoning for agricultural use or a Williamson Act contract. No impact would occur in this regard.

Mitigation Measures: No mitigation measures are required.

c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 122220(g)), timberland as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?

No Impact. The project site is zoned NMU-24 and is not occupied by or used for forest land or timberland purposes. Further, project implementation would not result in the rezoning of forest land, timberland, or timberland zoned Timberland Production. No impacts would occur.

Mitigation Measures: No mitigation measures are required.

d) Result in the loss of forest land or conversion of forest land to non-forest use?

No Impact. Refer to Response 4.2(c). No impacts would occur.

Mitigation Measures: No mitigation measures are required.

e) Involve other changes in the existing environment, which due to their location or nature, could result in conversion of farmland to non-agricultural use or conversion of forest land to non-forest use?

No Impact. Refer to Responses 4.2(a) through 4.2(d). No impacts would occur.

Mitigation Measures: No mitigation measures are required.

[2] California Department of Conservation, *Agricultural Preserves 2004 – Williamson Act Parcels, Orange County, California*, ftp://ftp.consrv.ca.gov/pub/dlrp/wa/Orange_WA_03_04.pdf, accessed May 9, 2018.

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

a) Conflict with or obstruct implementation of the applicable Air Quality Management Plan or Congestion Management Plan?

Less Than Significant Impact. The proposed project is located within the South Coast Air Basin (Basin), which is governed by the South Coast Air Quality Management District (SCAQMD). On March 3, 2017, the SCAQMD Governing Board approved the *2016 Air Quality Management Plan* (2016 AQMP), which outlines its strategies for meeting the National Ambient Air Quality Standards (NAAQS) for fine particulate matter ($PM_{2.5}$) and ozone (O_3). According to the SCAQMD's 2016 AQMP, two main criteria must be addressed.

CRITERION 1:

With respect to the first criterion, SCAQMD methodologies require that an air quality analysis for a project include forecasts of project emissions in relation to contributing to air quality violations and delay of attainment.

a) Would the project result in an increase in the frequency or severity of existing air quality violations?

Since the consistency criteria identified under the first criterion pertain to pollutant concentrations, rather than to total regional emissions, an analysis of a project's pollutant emissions relative to localized pollutant concentrations is used as the basis for evaluating project consistency. As discussed in Response 4.3(d), below, localized concentrations of carbon monoxide (CO), nitrogen oxides (NO_X), and fugitive dust (PM_{10} and $PM_{2.5}$) would be less than significant during project operations. Therefore, the proposed project would not result in an increase in the frequency or severity of existing air quality violations. Because reactive organic gases (ROGs) are not a criteria pollutant, there is no ambient standard or localized threshold for ROGs. Due to the role ROG plays in ozone formation, it is classified as a precursor pollutant and only a regional emissions threshold has been established.

b) Would the project cause or contribute to new air quality violations?

As discussed in Response 4.3(b), the proposed project would produce emissions that would be below the SCAQMD operational thresholds. Therefore, the proposed project would not have the potential to cause or affect a violation of the ambient air quality standards.

c) Would the project delay timely attainment of air quality standards or the interim emissions reductions specified in the AQMP?

The proposed project would result in less than significant impacts with regard to localized concentrations during project operations. As such, the proposed project would not delay the timely attainment of air quality standards or 2016 AQMP emissions reductions.

CRITERION 2:

With respect to the second criterion for determining consistency with SCAQMD and Southern California Association of Government's (SCAG) air quality policies, it is important to recognize that air quality planning within the Basin focuses on attainment of ambient air quality standards at the earliest feasible date. Projections for achieving air quality goals are based on assumptions regarding population, housing, and growth trends. Thus, the SCAQMD's second criterion for determining project consistency focuses on whether or not the proposed project exceeds the assumptions utilized in preparing the forecasts presented in the 2016 AQMP. Determining whether or not a project exceeds the assumptions reflected in the 2016 AQMP involves the evaluation of the three criteria outlined below. The following discussion provides an analysis of each of these criteria.

a) Would the project be consistent with the population, housing, and employment growth projections utilized in the preparation of the AQMP?

In the case of the 2016 AQMP, three sources of data form the basis for the projections of air pollutant emissions: *City of Orange General Plan* (General Plan), SCAG's *Growth Management* Chapter of the *Regional Comprehensive Plan* (RCP), and SCAG's *2016-2040 Regional Transportation Plan/Sustainable Communities Strategy* (RTP/SCS). The RTP/SCS also provides socioeconomic forecast projections of regional population growth. The population, housing, and employment forecasts, which are adopted by SCAG's Regional Council, are based on the local plans and policies applicable to the City. Additionally, the SCAQMD has incorporated these same projections into the 2016 AQMP.

The project site is designated as Neighborhood Mixed Use (NMIX) by the General Plan. The NMIX minimum floor area ration (FAR) is intended to support higher intensity development consistent with an urban mixed-use district. The project proposes to re-designate the project site to General Commercial (CG) and re-zone the project site from Neighborhood Mixed Use (NMU-24) to General Business (C-2), which has a maximum floor area of 1.0, which is lower than the NMIX FAR minimum 1.0 and maximum 1.5. Thus, although the project proposes a General Plan Amendment and Zone Change, the allowable development intensity would be reduced compared to that analyzed as part of the 2016 AQMP. Thus, it can be concluded that the proposed project would be consistent with the 2016 AQMP projections.

b) Would the project implement all feasible air quality mitigation measures?

Compliance with all feasible emission reduction measures identified by the SCAQMD would be required as identified in Response 4.3(b). As such, the proposed project would meet this 2016 AQMP consistency criterion.

c) Would the project be consistent with the land use planning strategies set forth in the AQMP?

As noted above, the emissions projections in the 2016 AQMP are based on land use planning strategies set forth in the General Plan, and SCAG's RCP and RTP/SCS. As discussed in Section 4.10, *Land Use and Planning*, and Table 4.7-3, *Consistency with the 2016-2040 RTP/SCS*, the proposed project would serve to implement several City and SCAG land use strategies and policies. The project consists of constructing a commercial (restaurant) use in a developed portion of the City in close proximity to commercial and residential uses and is considered a less intense development than originally planned for in the General Plan (i.e., the project would have maximum FAR of 1.0 which is lower than the NMIX maximum FAR of 1.5). Thus, the proposed project would be consistent with the land use planning strategies set forth in the 2016 AQMP.

In conclusion, the determination of the 2016 AQMP consistency is primarily concerned with the long-term influence of a project on air quality in the Basin. The proposed project would not result in a long-term impact on the region's ability to meet State and Federal air quality standards. Also, the proposed project would be consistent with the goals and policies of the 2016 AQMP for control of fugitive dust. As discussed above, the proposed project would also be consistent with SCAQMD and SCAG's goals and policies and is considered consistent with the 2016 AQMP.

Mitigation Measures: No mitigation measures are required.

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

Less Than Significant Impact With Mitigation Incorporated.

SHORT-TERM CONSTRUCTION EMISSIONS

Construction related activities would generate short-term air quality impacts. Construction activities would include demolition, grading, building construction, paving, and architectural coating. The duration of construction activities associated with the proposed project is estimated to last approximately six months and commence in May 2019. Construction activities would require approximately 950 cubic yards of soil export. Construction equipment would include excavators, graders, off-highway tractors, paving equipment, rollers, loaders, scrapers, backhoes, and trenchers. Exhaust emission factors for typical diesel-powered heavy equipment are based on the California Emissions Estimator Model (CalEEMod) program defaults. Variables factored into estimating the total construction emissions include the level of activity, length of construction period, number of pieces and types of equipment in use, site characteristics, and the amount of materials to be transported on- or off-site.

In accordance with the SCAQMD Guidelines, CalEEMod was utilized to model construction emissions for ROG, NO_X, CO, sulfur oxides (SO_X), PM_{10}, and $PM_{2.5}$. CalEEMod allows the user

to input mitigation measures such as watering the construction area to limit fugitive dust. Mitigation measures that were inputted into CalEEMod allow for certain reduction credits and result in a decrease of pollutant emissions. Reduction credits are based upon studies developed by CARB, SCAQMD, and other air quality management districts throughout California, and were programmed within CalEEMod.

Refer to Appendix 8.1, *Air Quality/Greenhouse Gas Data*, for the CalEEMod modeling outputs and results. Table 4.3-1, *Construction Related Emissions*, presents the anticipated daily short-term construction emissions. Table 4.3-1 also provides the reduction associated with mitigation measures calculated by CalEEMod.

Table 4.3-1
Construction Related Emissions

Emissions Source	Pollutant (pounds/day)[1]					
	ROG	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
2019						
Unmitigated Emissions	8.01	36.12	24.70	0.05	10.71	2.20
Mitigated Emissions[2,3]	8.01	36.12	24.70	0.05	4.70	1.75
SCAQMD Thresholds	*75*	*100*	*550*	*150*	*150*	*55*
Is Threshold Exceeded After Mitigation?	***No***	***No***	***No***	***No***	***No***	***No***

Notes:

1. Emissions were calculated using CalEEMod, as recommended by the SCAQMD.
2. Modeling assumptions include compliance with SCAQMD Rule 403 which requires: properly maintain mobile and other construction equipment; replace ground cover in disturbed areas quickly; water exposed surfaces three times daily; cover stock piles with tarps; water all haul roads twice daily; and limit speeds on unpaved roads to 15 miles per hour.
3. Refer to Appendix 8.1, *Air Quality/Greenhouse Gas Data*, for assumptions used in this analysis.

Fugitive Dust Emissions

Construction activities are a source of fugitive dust emissions that may have a substantial, temporary impact on local air quality. In addition, fugitive dust may be a nuisance to those living and working in the project area. Fugitive dust emissions are associated with land clearing, ground excavation, cut-and-fill, and truck travel on unpaved roadways (including demolition as well as construction activities). Fugitive dust emissions vary substantially from day to day, depending on the level of activity, specific operations, and weather conditions. Fugitive dust from grading, excavation, and construction is expected to be short-term and would cease upon project completion.

Dust (larger than 10 microns) generated by such activities usually becomes more of a local nuisance than a serious health problem. Of particular health concern is the amount of PM_{10} (particulate matter smaller than 10 microns) generated as a part of fugitive dust emissions. PM_{10} poses a serious health hazard alone or in combination with other pollutants. Fine Particulate Matter ($PM_{2.5}$) is mostly produced by mechanical processes. These include automobile tire wear, industrial processes such as cutting and grinding, and re-suspension of particles from the ground or road surfaces by wind and human activities such as construction or agriculture. $PM_{2.5}$ is mostly derived from combustion sources, such as automobiles, trucks, and other vehicle exhaust, as well as from stationary sources. These particles are either directly emitted or are formed in the atmosphere from the combustion of gases such as NO_X and SO_X combining with ammonia. $PM_{2.5}$

components from material in the earth's crust, such as dust, are also present, with the amount varying in different locations.

As shown in Table 4.3-1, PM_{10} and $PM_{2.5}$ unmitigated emissions would not exceed the established SCAQMD thresholds, resulting in less than significant project impacts. Notwithstanding, Mitigation Measure AQ-1 would implement dust control techniques (i.e., daily watering), limitations on construction hours, and adherence to SCAQMD Rules 402 and 403 (which require watering of inactive and perimeter areas, track out requirements, etc.), to reduce PM_{10} and $PM_{2.5}$ concentrations, which would further reduce the project's less than significant impacts. It should be noted that these reductions were applied in CalEEMod, as demonstrated in Table 4.3-1. Mitigation Measure AQ-1 would be required to ensure compliance with SCAQMD Rules and Regulations, which would be verified and enforced through the City's development review process. As depicted in Table 4.3-1, total PM_{10} and $PM_{2.5}$ construction-related unmitigated emissions for the project would not exceed the SCAQMD thresholds. Therefore, impacts would be less than significant.

Construction Equipment and Worker Vehicle Exhaust

Exhaust emissions from construction activities include emissions associated with the transport of machinery and supplies to and from the project site, emissions produced on-site as the equipment is used, and emissions from trucks transporting materials to/from the site. As presented in Table 4.3-1, construction equipment and worker vehicle exhaust emissions (i.e. ROG, NO_x, CO, SO_2, PM_{10}, and $PM_{2.5}$) would be below the established SCAQMD thresholds. Therefore, air quality impacts from equipment and vehicle exhaust emission would be less than significant.

ROG Emissions

In addition to gaseous and particulate emissions, the application of asphalt and surface coatings creates ROG emissions, which are O_3 precursors. All architectural coatings for the new restaurant structure would be required to comply with SCAQMD Regulation XI, Rule 1113 – Architectural Coating. Rule 1113 provides specifications on painting practices as well as regulates the ROG content of paint. As shown in Table 4.3-1, ROG emissions would be below SCAQMD thresholds and impacts remain at less than significant levels.

Naturally Occurring Asbestos

Asbestos is a term used for several types of naturally occurring fibrous minerals that are a human health hazard when airborne. The most common type of asbestos is chrysotile, but other types such as tremolite and actinolite are also found in California. Asbestos is classified as a known human carcinogen by State, Federal, and international agencies and was identified as a toxic air contaminant by the CARB in 1986.

Asbestos can be released from serpentinite and ultramafic rocks when the rock is broken or crushed. At the point of release, the asbestos fibers may become airborne, causing air quality and human health hazards. These rocks have been commonly used for unpaved gravel roads, landscaping, fill projects, and other improvement projects in some localities. Asbestos may be released to the atmosphere due to vehicular traffic on unpaved roads, during grading for development projects, and at quarry operations. All of these activities may have the effect of releasing potentially harmful asbestos into the air. Natural weathering and erosion processes can act on asbestos bearing rock and make it easier for asbestos fibers to become airborne if such rock is disturbed. According to the Department of Conservation Division of Mines and Geology,

A General Location Guide for Ultramafic Rocks in California – Areas More Likely to Contain Naturally Occurring Asbestos Report (August 2000), serpentinite and ultramafic rocks are not known to occur within the project area. Thus, there would be no impact in this regard.

Total Daily Construction Emissions

As indicated in Table 4.3-1, impacts would be less than significant for all criteria pollutants during construction. Implementation of standard SCAQMD measures (required by Mitigation Measure AQ-1) would further reduce these emissions. Thus, construction related air emissions would be less than significant.

LONG-TERM EMISSIONS

Project-generated emissions would be associated with mobile source emissions from motor vehicle use, energy emissions from energy consumption, and area sources generated by the use of natural-gas-fired appliances, landscape maintenance equipment, consumer products, and architectural coatings. Long-term operational emissions attributable to the proposed project are summarized in Table 4.3-2, *Long-Term Operational Emissions*.

Table 4.3-2
Long-Term Operational Emissions

Emissions Source	Pollutant (pounds/day)[1, 2]					
	ROG	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Mobile Emissions	2.10	6.72	17.42	0.04	3.65	1.01
Area Source Emissions	0.11	0.00	0.01	0.00	0.00	0.00
Energy Emissions	0.04	0.32	0.27	0.00	0.02	0.02
Total Emissions	***2.25***	***7.04***	***17.69***	***0.05***	***3.68***	***1.04***
SCAQMD Threshold	*55*	*55*	*550*	*150*	*150*	*55*

Notes:
1. Based on CalEEMod modeling results, worst-case seasonal emissions for area and mobile emissions have been modeled.
2. Refer to Appendix 8.1, *Air Quality/Greenhouse Gas Data*, for assumptions used in this analysis.

Mobile Source Emissions

Mobile sources are emissions from motor vehicles, including tailpipe and evaporative emissions. Depending upon the pollutant being discussed, the potential air quality impact may be of either regional or local concern. For example, ROG, NO_X, SO_X, PM_{10}, and $PM_{2.5}$ are all pollutants of regional concern (NO_X and ROG react with sunlight to form O_3 [photochemical smog], and wind currents readily transport SO_X, PM_{10}, and $PM_{2.5}$). However, CO tends to be a localized pollutant, dispersing rapidly at the source.

According to the *Traffic Impact Analysis* (included in Appendix 8.7, *Traffic Impact Analysis and Circulation Plan)*, the proposed project would generate approximately 1,612 daily trips. Table 4.3-2, *Long-Term Operational Emissions*, presents the anticipated mobile source emissions. As shown in Table 4.3-2, emissions generated by vehicle traffic associated with the proposed project would not exceed established SCAQMD thresholds. Impacts from mobile source air emissions would be less than significant.

Area Source Emissions

Area source emissions (i.e. ROG and CO emissions) would be generated from consumer products, architectural coating, and landscaping. As shown in Table 4.3-2, all criteria pollutants from area source emissions would be below the SCAQMD's significance thresholds.

Energy Source Emissions

Energy source emissions (i.e. ROG, NO_X, CO, PM_{10}, and $PM_{2.5}$ emissions) would be generated as a result of electricity and natural gas (non-hearth) usage associated with the proposed project. The primary use of electricity and natural gas by the project would be for space heating and cooling, water heating, ventilation, lighting, appliances, and electronics. Energy use from systems covered by Title 24 (heating, ventilation, and air conditioning [HVAC], water heating, and the lighting systems), appliances, and other sources not covered by Title 24 are calculated in CalEEMod. As shown in Table 4.3-2, all criteria pollutants from energy source emissions would be below the SCAQMD's significance thresholds.

Total Operational Emissions

As indicated in Table 4.3-2, operational emissions from the proposed project would not exceed SCAQMD thresholds. Thus, operational air quality impacts would be less than significant.

Mitigation Measures:

AQ-1 Prior to issuance of any Grading Permit, the City Engineer shall confirm that the Grading Plan and specifications stipulate that, in compliance with SCAQMD Rule 403, excessive fugitive dust emissions shall be controlled by regular watering or other dust prevention measures, as specified in the SCAQMD's Rules and Regulations. In addition, the City Engineer shall confirm that the Grading Plans and specifications comply with SCAQMD Rule 402, which requires implementation of dust suppression techniques to prevent fugitive dust from creating a nuisance off-site. The following measures shall be implemented to reduce short-term fugitive dust impacts on nearby sensitive receptors:

- All active portions of the construction site shall be watered during daily construction activities and when dust is observed migrating from the project site to prevent excessive amounts of dust. The Applicant shall submit a watering plan to control fugitive dust;
- Pave or apply water every three hours during daily construction activities or apply non-toxic soil stabilizers on all unpaved access roads, parking areas, and staging areas. More frequent watering shall occur if dust is observed migrating from the site during site disturbance;
- Any on-site stockpiles of debris, dirt, or other dusty material shall be enclosed, covered, or watered twice daily, or non-toxic soil binders shall be applied;
- All grading and excavation operations shall be suspended when wind speeds exceed 25 miles per hour;
- Disturbed areas shall be replaced with ground cover or paved immediately after construction is completed in the affected area;

- Track-out devices such as gravel bed track-out aprons (3 inches deep, 25 feet long, 12 feet wide per lane and edged by rock berm or row of stakes) shall be installed to reduce mud/dirt trackout from unpaved truck exit routes. Alternatively, a wheel washer shall be used at truck exit routes;

- On-site vehicle speeds shall be limited to 15 miles per hour;

- All material transported off-site shall be either sufficiently watered or securely covered to prevent excessive amounts of dust prior to departing the job site; and

- Trucks associated with soil-hauling activities shall avoid residential streets and utilize City-designated truck routes to the extent feasible.

c) Result in a cumulatively considerable net increase of any criteria pollutant for which the air basin is nonattainment under an applicable Federal or State ambient air quality standard (including releasing emissions, which exceed quantitative thresholds for ozone precursors)?

Less Than Significant Impact With Mitigation Incorporated. With respect to the proposed project's construction-related air quality emissions and cumulative Basin-wide conditions, the SCAQMD has developed strategies to reduce criteria pollutant emissions outlined in the 2016 AQMP pursuant to Federal Clean Air Act (FCAA) mandates. As such, the proposed project would implement Mitigation Measure AQ-1, which requires compliance with SCAQMD Rule 403 requirements. Rule 403 requires that fugitive dust be controlled with the best available control measures in order to reduce dust so that it does not remain visible in the atmosphere beyond the property line of the proposed project. In addition, the proposed project would comply with adopted 2016 AQMP emissions control measures. Per SCAQMD rules and mandates, as well as the CEQA requirement that significant impacts be mitigated to the extent feasible, all construction projects throughout the Basin would be required to comply with these same requirements (i.e., Rule 403 compliance, the implementation of all feasible mitigation measures, and compliance with adopted 2016 AQMP emissions control measures).

As discussed previously, the proposed project would not result in long-term air quality impacts, as emissions would not exceed the SCAQMD adopted operational thresholds. Additionally, adherence to SCAQMD rules and regulations would alleviate potential impacts related to cumulative conditions on a project-by-project basis. Emission reduction technology, strategies, and plans are constantly being developed. As a result, the proposed project would not contribute a cumulatively considerable net increase of any nonattainment criteria pollutant. Therefore, cumulative operational impacts associated with implementation of the proposed project would be less than significant.

Mitigation Measures: Refer to Mitigation Measure AQ-1. No additional mitigation is required.

d) Expose sensitive receptors to substantial pollutant concentrations?

Less Than Significant Impact With Mitigation Incorporated. Sensitive receptors are defined as facilities or land uses that include members of the population that are particularly sensitive to the effects of air pollutants, such as children, the elderly, and people with illnesses. Examples of these sensitive receptors are residences, schools, hospitals, and daycare centers. CARB has identified the following groups of individuals as the most likely to be affected by air pollution: the

elderly over 65, children under 14, athletes, and persons with cardiovascular and chronic respiratory diseases such as asthma, emphysema, and bronchitis.

The nearest sensitive receptors to the project site include a preschool located approximately 18 feet to the west, residential uses located approximately 112 feet to the west, and residential uses located approximately 83 feet to the north of the project site. In order to identify impacts to sensitive receptors, the SCAQMD recommends addressing localized significance thresholds (LSTs) for construction and operations impacts (area sources only). The CO hotspot analysis following the LST analysis addresses localized mobile source impacts.

LOCALIZED SIGNIFICANCE THRESHOLDS

LSTs were developed in response to SCAQMD Governing Boards' Environmental Justice Enhancement Initiative (I-4). The SCAQMD provided the *Final Localized Significance Threshold Methodology* (dated June 2003 [revised 2008]) for guidance. The LST methodology assists lead agencies in analyzing localized air quality impacts. The SCAQMD provides the LST screening lookup tables for one, two, and five-acre projects emitting CO, NO_X, $PM_{2.5}$, or PM_{10}. The LST methodology and associated mass rates are not designed to evaluate localized impacts from mobile sources traveling over the roadways. The SCAQMD recommends that any project over five acres should perform air quality dispersion modeling to assess impacts to nearby sensitive receptors. The project is located within Sensitive Receptor Area (SRA) 17, Central Orange County.

CONSTRUCTION

Based on the SCAQMD guidance on applying CalEEMod to LSTs, the project would disturb approximately one acre of land per day. Therefore, the LST thresholds for one acre were utilized for the construction LST analysis. The closest sensitive receptors to the project site is a preschool located approximately 18 feet to the west. This sensitive land use may be potentially affected by air pollutant emissions generated during on-site construction activities. LST thresholds are provided for distances to sensitive receptors of 25, 50, 100, 200, and 500 meters. Notwithstanding, the SCAQMD Methodology explicitly states: "It is possible that a project may have receptors closer than 25 meters. Projects with boundaries located closer than 25 meters to the nearest receptor should use the LSTs for receptors located at 25 meters." Therefore, LSTs for receptors located at 25 meters were utilized in this analysis.

Table 4.3-3, *Localized Significance of Construction Emissions*, shows the construction-related emissions for NO_X, CO, and $PM_{2.5}$ compared to the LSTs for SRA 17, Central Orange County. As shown in Table 4.3-3, unmitigated construction emissions would not exceed the LSTs for SRA 17, with the exception of PM_{10}. However, with implementation of Mitigation Measure AQ-1, mitigated construction emissions would not exceed the LSTs for PM_{10} in SRA 17. Therefore, localized significance impacts from construction would be less than significant with incorporation of mitigation.

Table 4.3-3
Localized Significance of Construction Emissions

Source	Pollutant (pounds/day)[3]			
	NO_X	CO	PM_{10}	$PM_{2.5}$
Construction				
Total Unmitigated On-Site Emissions[1]	33.80	22.33	9.80	1.91
Total Mitigated On-Site Emissions[1]	33.80	22.33	3.97	1.03
Localized Significance Threshold[2]	81	512	4	3
Thresholds Exceeded?	***No***	***No***	***No***	***No***

Notes:

1. For construction, the building construction phase emissions are presented as the worst-case scenario.
2. The Localized Significance Threshold was determined using Appendix C of the SCAQMD *Final Localized Significant Threshold Methodology* guidance document for pollutants NO_X, CO, PM_{10}, and $PM_{2.5}$. The Localized Significance Threshold was based on the anticipated daily acreage disturbance for construction (approximately 1.0 acre; therefore the 1-acre threshold was used) and the source receptor area (SRA 17).
3. Refer to Appendix 8.1, *Air Quality/Greenhouse Gas Data*, for assumptions used in this analysis.

OPERATIONS

As seen in Table 4.3-4, *Localized Significance of Operational Emissions*, project-related operational area source emissions would be negligible and would be below the LSTs. Therefore, operational LST impacts would be less than significant in this regard.

Table 4.3-4
Localized Significance of Operational Emissions

Source	Pollutant (pounds/day)[2]			
	NO_X	CO	PM_{10}	$PM_{2.5}$
Operational				
Area Source Emissions	0.00	0.01	0.00	0.00
Localized Significance Threshold[1]	81	512	1	1
Thresholds Exceeded?	***No***	***No***	***No***	***No***

Notes:

1. The Localized Significance Threshold was determined using Appendix C of the SCAQMD *Final Localized Significant Threshold Methodology* guidance document for pollutants NO_X, CO, PM_{10}, and $PM_{2.5}$. The Localized Significance Threshold was based on the total acreage for operational (the 1-acre threshold was used), the distance to sensitive receptors, and the source receptor area (SRA 17).
2. Refer to Appendix 8.1, *Air Quality/Greenhouse Gas Data*, for assumptions used in this analysis.

CARBON MONOXIDE HOTSPOTS

CO emissions are a function of vehicle idling time, meteorological conditions, and traffic flow. Under certain extreme meteorological conditions, CO concentrations near a congested roadway or intersection may reach unhealthful levels (i.e., adversely affecting residents, school children, hospital patients, the elderly, etc.). The SCAQMD requires a quantified assessment of CO hotspots when a project increases the volume-to-capacity ratio (also called the intersection capacity utilization) by 0.02 (two percent) for any intersection with an existing level of service LOS D or worse. Because traffic congestion is highest at intersections where vehicles queue and are subject to reduced speeds, these hot spots are typically produced at intersections.

The Basin is designated as an attainment/maintenance area for the Federal CO standards and an attainment area for State standards. There has been a decline in CO emissions even though vehicle miles traveled on U.S. urban and rural roads have increased. On-road mobile source CO emissions have declined 24 percent between 1989 and 1998, despite a 23 percent rise in motor vehicle miles traveled over the same 10 years. California trends have been consistent with national trends; CO emissions declined 20 percent in California from 1985 through 1997 while vehicle miles traveled increased 18 percent in the 1990s. CO emissions have continued to decline since this time. The Basin was re-designated as attainment in 2007, and is no longer addressed in the SCAQMD's AQMP. Three major control programs have contributed to the reduced per-vehicle CO emissions: exhaust standards, cleaner burning fuels, and motor vehicle inspection/ maintenance programs.

A detailed CO analysis was conducted in the Federal Attainment Plan for Carbon Monoxide (CO Plan) for the SCAQMD's 2003 Air Quality Management Plan. The 2003 Air Quality Management Plan is the most recent AQMP that addresses CO concentrations. The locations selected for microscale modeling in the CO Plan are worst-case intersections in the Basin, and would likely experience the highest CO concentrations. Thus, CO analysis within the CO Plan is utilized in a comparison to the proposed project, since it represents a worst-case scenario with heavy traffic volumes within the Basin.

Of these locations, the Wilshire Boulevard/Veteran Avenue intersection in Los Angeles experienced the highest CO concentration (4.6 parts per million [ppm]), which is well below the 35-ppm 1-hr CO Federal standard. The Wilshire Boulevard/Veteran Avenue intersection is one of the most congested intersections in Southern California with an average daily traffic (ADT) volume of approximately 100,000 vehicles per day. As the CO hotspots were not experienced at the Wilshire Boulevard/Veteran Avenue intersection, it can be reasonably inferred that CO hotspots would not be experienced at any intersections within the City of Orange near the project site of the drive-thru facility due to low volume of traffic (1,612 daily trips, 93 a.m. peak hour trips, and 74 p.m. peak hour trips) that would occur as a result of project implementation. Therefore, impacts would be less than significant in this regard.

ON-SITE VEHICLE IDLING

The proposed project's drive-thru lane is designed to accommodate approximately 17 vehicles. The volume of vehicles accessing the site would be minimal compared to the Wilshire Boulevard/Veteran Avenue intersection ADT of approximately 100,000 vehicles per day. As previously noted, the proposed restaurant will result in a low volume of peak hour trips. With a marginal amount of vehicles accessing the site, there would not be a significant amount of vehicle queuing in the drive-thru and a CO hotspot would not occur and impacts would be less than significant in this regard.

Mitigation Measures: Refer to Mitigation Measure AQ-1. No additional mitigation is required.

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

Less Than Significant Impact. According to the SCAQMD *CEQA Air Quality Handbook*, land uses associated with odor complaints typically include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding. The proposed project does not include any of these uses or odor sources. Due to the nature of the proposed project (restaurant), there is the potential for uses within the immediate area to experience odors associated with restaurant operations. The project would be

required to comply with SCAQMD Rules 402, which prohibits discharge from any source of air contaminants that cause nuisance or annoyance to any considerable number of persons or to the public, and 1138, which requires the testing of specific cooking devices, a catalytic oxidizer control device, or other control device or method found to be as or more effective, etc.. Although the proposed project is not identified as a use resulting in objectionable odors, compliance with SCAQMD Rules 402 and 1138 would further ensure potential restaurant-related odors during operation would not create objectionable odors affecting a substantial number of people. Impacts would be less than significant.

Construction activity associated with the project may generate detectable odors from heavy-duty equipment exhaust. Construction related odors would be short-term in nature and cease upon project completion. Any impacts to existing adjacent land uses would be short-term and are considered less than significant given the project size.

Mitigation Measures: No mitigation measures are required.

4.4 BIOLOGICAL RESOURCES

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?				✓
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?				✓
c. Have a substantial adverse effect on Federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?				✓
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?		✓		
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?			✓	
f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan?				✓

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

No Impact. The project site is located within a developed, urbanized area and is fully developed with a commercial (restaurant) structure, associated surface parking lot, and is landscaped with ornamental landscaping features. Implementation of the proposed project would include similar uses including a commercial (restaurant) structure, associated surface parking lot and ornamental landscaping. According to the General Plan PEIR, the City's urbanized areas provide low habitat value for sensitive species. Based on the site's disturbed condition, project implementation would not adversely impact any species identified as candidate, sensitive, or special status. No impacts would occur in this regard.

Mitigation Measures: No mitigation measures are required.

b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

No Impact. Riparian habitats are those occurring along the banks of rivers and streams. Sensitive natural communities are natural communities that are considered rare in the region by regulatory agencies, known to provide habitat for sensitive animal or plant species, or known to be important wildlife corridors. According to the General Plan PEIR, riparian habitat and wetlands within the existing urbanized area of the City occur along Santiago Creek. The project site is located over one mile north of the Santiago Creek and there is no riparian habitat or other sensitive natural communities present on the project site or in the vicinity. Thus, project implementation would not significantly impact any riparian habitat or other sensitive natural community. No impacts would occur.

Mitigation Measures: No mitigation measures are required.

c) Have a substantial adverse effect on Federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, costal, etc.) through direct removal, filling, hydrological interruption, or other means?

No Impact. Wetlands are defined under the Federal Clean Water Act as land that is flooded or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that normally does support, a prevalence of vegetation adapted to life in saturated soils. Wetlands include areas such as swamps, marshes, and bogs. There are no Federally protected wetlands present on the project site. The closest wetland habitat is located approximately one mile to the south of the project site at Santiago Creek. Thus, project implementation would not impact Federally protected wetlands through direct removal, filling, hydrological interruption, or other means.

Mitigation Measures: No mitigation measures are required.

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?

Less Than Significant Impact With Mitigation Incorporated. Although the majority of the City is characterized by urbanized areas with low habitat value for wildlife, the City's primary functional wildlife corridors are Santiago Creek through the center of the City; the northeastern portion of the City and the Southern California Edison (SCE) utility corridors, which link with Santiago Oaks Park; and preserved hillsides and ridgelines in the southeastern portion of the City that link with Peters Canyon Park. In addition, a significant amount of East Orange is currently undeveloped, including the Irvine Ranch Land Reserve (IRLR) and the Nature Reserve of Orange County established by the *Orange County Central/Coastal Natural Community Conservation Plan* (NCCP). These have the potential for wildlife corridors that are used by numerous species in the planning area.

As discussed above, the project site is fully urbanized, consists entirely of developed or disturbed habitat, and is located outside of General Plan identified preserves and wildlife corridors discussed above. Further, the project site is surrounded by other urban uses. There are no areas within the project vicinity which could function as wildlife corridors or nursery sites for wildlife. As discussed in Section 2.0, *Project Description*, project implementation would remove eight of the

18 existing perimeter trees (queen palms and fan palms) along the western property boundary (the existing 10 palms along the southern property boundary would remain); refer to Exhibit 2-4, *Landscape Concept Plan*. An additional palm tree along South Main Street would be removed as requested by the Orange County Transportation Authority (OCTA) to provide clear line of sight for OCTA bus operators to clearly see passengers waiting at the proposed relocated bus stop. These trees have the potential to provide suitable nesting opportunities for nesting birds. The Migratory Bird Treaty Act (MBTA) governs the taking, killing, possession, transportation, and importation of migratory birds, their eggs, parts, and nests. To reduce potential impacts to nesting birds, Mitigation Measure BIO-1 requires a pre-construction nesting bird clearance survey to determine the presence/ absence, location, and status of any active nests on or adjacent to the project site. If the nesting bird clearance survey indicates the presence of nesting birds, Mitigation Measure BIO-1 requires buffers to ensure that any nesting birds are protected pursuant to the MBTA. With implementation of Mitigation Measure BIO-1, the project's potential construction-related impacts to migratory birds would be reduced to a less than significant level.

Mitigation Measures:

BIO-1 In the event that vegetation and tree removal should occur between January 15 and September 15, the project applicant shall retain a qualified biologist to conduct a nesting bird survey no more than three days prior to commencement of construction activities. The biologist conducting the clearance survey shall document the negative results if no active bird nests are observed on the project site or within the vicinity during the clearance survey with a brief letter report, submitted to the City of Orange Community Development Department prior to construction, indicating that no impacts to active bird nests would occur before construction can proceed. If an active avian nest is discovered during the pre-construction clearance survey, construction activities shall stay outside of a 300-foot buffer around the active nest. For listed and raptor species, this buffer shall be 500 feet. A biological monitor shall be present to delineate the boundaries of the buffer area and to monitor the active nest to ensure that nesting behavior is not adversely affected by the construction activity. Prior to the commencement of construction activities and the issuance of any permits, results of the pre-construction survey and any subsequent monitoring shall be provided to the City of Orange Community Development Department, California Department of Fish and Wildlife and other appropriate agencies.

e) Conflict with any local policies or ordinances protecting biological resources, such as tree preservation policy or ordinance?

Less Than Significant Impact. The City's participation in the NCCP, its Master Street Tree Plan, and the Tree Preservation Ordinance function as the primary local measures to protect biological resources. According to the General Plan PEIR, the Master Street Tree Plan and the Tree Preservation Ordinance are effective procedures to monitor the potential for impacts to existing trees that provide roosting and nesting habitat for native and migratory birds throughout the City. The City's Tree Preservation Ordinance is codified in Municipal Code Chapter 12.32, *Tree Preservation*. The Tree Preservation Ordinance restricts removal of trees, including those on private property that are deemed to be "endowed with a public interest" or may be of historical value "by virtue of their origin, size, uniqueness and/or national or regional rarity." Trees determined to be historic are compiled on a master list, which is maintained by the Community Services Department and approved by resolution of the City Council.

As indicated in Response 4.4(d), project implementation would require the removal of eight on-site ornamental trees as well as one ornamental tree along South Main Street. Pursuant to Municipal Code Section 12.32.030, the Applicant would be required to obtain a Tree Removal Permit. Pursuant to Section 12.32.060, the on- and off-site queen palms and fan palms are not considered Historical Trees. With compliance with the Municipal Code regulations pertaining to a Tree Removal Permit, impacts in this regard are less than significant.

Mitigation Measures: No mitigation measures are required.

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?

No Impact. The City of Orange is subject to the NCCP. General Plan PEIR Figure 5.4-2, *NCCP Habitat Reserve Area*, identifies areas within the City that are designated NCCP Habitat Reserve. According to General Plan PEIR Figure 5.4-2, the project site is not located within the NCCP. No other approved local, regional, or State habitat conversation plans apply to the site. Thus, the project would not conflict with the provisions of an adopted Habitat Conservation Plan, NCCP, or other approved local, regional, or State habitat conservation plan. No impacts would occur in this regard.

Mitigation Measures: No mitigation measures are required.

4.5 CULTURAL RESOURCES

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

The information presented in this analysis is based on the *Cultural Resources Assessment for the 202 S. Main Street Chick-Fil-A Project* (Cultural Resources Assessment) prepared by Rincon Consultants, Inc. (Rincon) (dated June 15, 2018); refer to Appendix 8.2, *Cultural Resources*.

a) Cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines Section 15064.5?

No Impact. As part of the Cultural Resources Assessment, a records search of the California Historical Resources Information System (CHRIS) at the South Central Coastal Information Center (SCCIC) was conducted on February 26, 2018 to identify previously identified cultural resources that have been recorded on the project site, as well as previously conducted cultural resources studies that have included a portion of the project site and 0.5-mile radius surrounding it. The CHRIS search also included a review of the National Register of Historic Places (NRHP) and the California Register of Historic Resources (CRHR), as well as available historic maps and aerial photographs.

The SCCIC records search identified one previously recorded cultural resource within a half-mile buffer of the project site. This resource, 30-158710, is a historic building known as the Porter-French House (HRI Property #038076), which is a domestic single-story house of Spanish Colonial Revival architecture and is listed on the NRHP. This resource is located outside of the project site and would not be impacted by project construction or operations. The record search identified no cultural resources within or directly adjacent to the project site; refer to Attachment B of Appendix 8.2.

A pedestrian field survey of the project site and surrounding area was also conducted on June 1, 2018. The field survey of the property involved a visual inspection of all built environment features at the project site, including buildings, structures, and associated features to assess their overall condition and integrity, and to identify and document any potential character-defining features. The existing restaurant structure was originally constructed in 1959, with additions to the building's street level façade at South Main Street and West Almond Avenue occurring in 1983. Rincon's evaluation of the property found no evidence to suggest it is eligible for listing as a historical resource (including NRHP/CRHR listing), as the on-site building is not:

- Associated with any important events or trends in history as it was one of many to have been developed in the postwar era,
- Important in history,
- Significant for its architecture or associated with a noted/master architect/builder, or
- Yielding information important in history/pre-history.

Furthermore, the property lacks integrity to its historic period. The 1983 additions themselves do not rise to the level of exceptional significance necessary for listing properties or additions below the age of 50 years. A detailed description of the property, historic context, and evaluation is included in Attachment C of Appendix 8.2. As such, the existing restaurant building is not a historical resource under CEQA and development of the proposed project would not result in impacts to historical resources.

Mitigation Measures: No mitigation measures are required.

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5?

Less Than Significant Impact With Mitigation Incorporated. The project site exists within a highly developed area and has been completely disturbed. As discussed in Appendix 8.2, five prior cultural resources studies have been completed within half a mile of the project site. One of these studies, OR-03373 (completed in 2006), included the current project site and involved archaeological monitoring for the Qwest Network Construction Project to the south. No archaeological resources were discovered as part of this effort.

Based on the Cultural Resources Assessment as well as consultation regarding the proposed project in accordance with SB 18, the presence of subsurface archaeological resources is not expected to be encountered during site grading/construction. Notwithstanding, in the unlikely event that project excavation uncovers previously undiscovered buried archaeological resources, Mitigation Measure CUL-1 would require all project grading and construction efforts to halt until an archaeologist examines the site, identifies the archaeological significance of the find, and recommends a course of action. Following implementation of Mitigation Measure CUL-1, the project would not significantly impact archaeological resources. Impacts in this regard would be reduced to less than significant levels.

Mitigation Measures:

CUL-1 Prior to the issuance of a grading permit, the Applicant shall provide written evidence to the Community Development Department that the Applicant has retained a qualified archaeologist meeting the Secretary of the Interior's Professional Qualification Standards for archaeology (National Park Service 1983) to respond on an as-needed basis to address unanticipated archaeological discoveries.

In the event that archaeological resources are encountered during ground-disturbing activities, work in the immediate area shall be halted, and the qualified archaeologist shall be contacted immediately to evaluate the resources. If the archaeologist determines that they are unique archaeological resources as defined by Public Resources Code Section 21083.2, the archaeologist shall make recommendations on

the treatment of the resources. The recommendations shall be developed in accordance with applicable provisions of Public Resources Code Section 21083.2 and CEQA Guidelines 15064.5 and 15126.4. The Applicant shall follow all recommendations made by the archaeologist. The final written report containing site forms, site significance, and mitigation measures shall be submitted immediately to the Community Development Department. All information regarding site locations, Native American human remains, and associated funerary objects shall be provided in a separate confidential addendum and not be made available for public disclosure. The final written report shall be submitted to the appropriate regional archaeological Information Center within three months after work has been completed.

c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Less Than Significant Impact With Mitigation Incorporated. According to the General Plan PEIR, areas of the City generally east of SR-55 are identified as areas of paleontological resource sensitivity. The project site is currently developed with an existing restaurant facility, approximately 70 surface parking spaces, and associated parking lot lighting and landscaping features, and is located greater than two miles to the west of SR-55. No unique geologic features are present on-site per the General Plan PEIR. As no paleontological resources are known to be present within the project vicinity, it is unlikely that the project would disturb paleontological resources during project construction. Notwithstanding, in the unlikely event that project excavation uncovers unknown paleontological resources, Mitigation Measure CUL-2 would require all project grading and construction efforts to halt until a paleontologist examines the site, identifies the paleontological significance of the resource, and recommends a course of action. Following implementation of Mitigation Measure CUL-2, the project would not significantly impact paleontological resources. Impacts in this regard would be reduced to less than significant levels.

Mitigation Measures:

CUL-2 Prior to the issuance of a grading permit, the Applicant shall provide written evidence to the Community Development Department that the Applicant has retained a qualified paleontologist (B.S./B.A. in geology, or related discipline with an emphasis in paleontology and demonstrated experience and competence in paleontological research, fieldwork, reporting, and curation) to respond on an as-needed basis to address unanticipated archaeological discoveries.

In the event that paleontological resources are encountered during ground-disturbing activities, all construction activities in the vicinity of the find shall halt until the qualified paleontologist identifies the paleontological significance of the find and recommends a course of action. Construction shall not resume until the site paleontologist states in writing that the proposed construction activities would not significantly damage paleontological resources.

d) Disturb any human remains, including those interred outside of formal cemeteries?

Less Than Significant Impact. The project site is fully developed, and no human remains were identified in 2006 during archaeological monitoring activities for the Quest Network Construction Project, which included the project site. As a result, human remains, including those interred outside of formal cemeteries, are not anticipated to be encountered during earth removal or disturbance activities. Based on the *Geotechnical Engineering Exploration and Analysis*

(Geotechnical Investigation) for the proposed project, prepared by Giles Engineering Associates, Inc. (dated December 14, 2016) (provided in Appendix 8.3, *Geotechnical Investigation*), engineered fill materials are present within the top 1.5 to 2 feet below ground surface (bgs). Proposed excavations would be approximately 3.5 feet bgs or less, with the exception of the proposed infiltration system, which would require up to 6 feet bgs in this portion of the subject site. Although not anticipated, there is the possibility that unknown human remains could be encountered in native on-site soils. In the unlikely event that human remains are found during ground disturbing activities, those remains would be required to conduct proper treatment, in accordance with applicable laws. California Health and Safety Code Sections 7050.5 to 7055 describe the general provisions for human remains. Specifically, Health and Safety Code Section 7050.5 describes the requirements if any human remains are accidentally discovered during on-site grading activities. As required by State law, the requirements and procedures set forth in Section 5097.98 of the California Public Resources Code would be implemented, which requires that disturbance of the site remain halted until the County Coroner can evaluate the find and notification of the Native American Heritage Commission (NAHC) if the remains are of Native American origin. The NAHC is responsible for contacting the most likely Native American descendent, for the purposes of consultation. Following compliance with existing State regulations, which detail the appropriate actions necessary in the event human remains are encountered, impacts in this regard would be reduced to less than significant levels.

Mitigation Measures: No mitigation measures are required.

4.6 GEOLOGY AND SOILS

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
1) Rupture of a known earthquake fault, as 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.				✓
2) Strong seismic ground shaking?			✓	
3) Seismic-related ground failure, including liquefaction?				✓
4) Landslides?				✓
b. Result in substantial soil erosion or the loss of topsoil?			✓	
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?			✓	
d. Be located on expansive soil, as defined in Table 18-1-B of the California Building Code (2001), creating substantial risks to life or property?			✓	
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 waste water?				✓

This section is primarily based upon the *Geotechnical Engineering Exploration and Analysis* (Geotechnical Investigation) for the proposed project, prepared by Giles Engineering Associates, Inc. (dated December 14, 2016); refer to Appendix 8.3, *Geotechnical Investigation*.

a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:

1) Rupture of a known earthquake fault, as 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.

No Impact. Southern California, including the project area, is subject to the effects of seismic activity due to the active faults that traverse the area. Active faults are defined as those that have experienced surface displacement within Holocene time (approximately the last 11,000 years) and/or are in a State-designated Alquist-Priolo Earthquake Fault Zone.

According to the Geotechnical Investigation, the project site is not located within an Alquist-Priolo Earthquake Fault Zone and no faults were identified on the site by Alquist-Priolo fault zone maps

prepared by the California Geological Survey (CGS).[1] Potential damage due to ground rupture is considered low since no active faults are known to cross the site. Since no known faults exist in the site vicinity and the site is not located within an Alquist-Priolo Earthquake Fault Zone, impacts would not occur in this regard.

Mitigation Measures: No mitigation measures are required.

2) Strong seismic ground shaking?

Less Than Significant Impact. Southern California has numerous active seismic faults subjecting residents to potential earthquake and seismic-related hazards. Seismic activity poses two types of potential hazards for residents and structures, categorized either as primary or secondary hazards. Primary hazards include ground rupture, ground shaking, ground displacement, subsidence, and uplift from earth movement. Primary hazards can also induce secondary hazards such as ground failure (lurch cracking, lateral spreading, and slope failure), liquefaction, water waves (seiches), movement on nearby faults (sympathetic fault movement), dam failure, and fires.

The project site is located within the highly seismic Southern California region within the influence of several fault systems. According to the Geotechnical Investigation, the closest known active faults are the San Joaquin Hills, Puente Hills (Coyote Hills), Elsinore, and Newport Inglewood faults, which are located approximately 6.51, 6.97, 9.41, and 10.46 miles from the project site, respectively. The San Joaquin Hills, Puente Hills (Coyote Hills), Elsinore, and Newport Inglewood faults have an anticipated maximum moment magnitude (Mw) of 7.10, 6.90, 7.85, and 7.50, respectively. As a result, the project would likely experience strong seismic ground shaking during its design life. In accordance with the California Building Code (CBC) and Municipal Code Section 15.04.010, *California Building Code Adopted by Reference*, structures built for human occupancy must be designed to meet or exceed the CBC standards for earthquake resistance. The CBC includes earthquake safety standards based on a variety of factors including occupancy type, types of soils and rocks on-site, and strength of probable ground motion at the project site. In accordance with CBC requirements, a Geotechnical Investigation was prepared to determine site-specific geologic conditions and appropriate design parameters. According to the Geotechnical Investigation, no faults (active, potentially active, or inactive) are known to exist in the site vicinity; refer to Response 4.6(a)(1). Nonetheless, the project would demonstrate compliance with applicable seismic-related design requirements to reduce impacts related to strong seismic ground shaking. The City of Orange Building Division would ensure incorporation of the Geotechnical Investigation's recommended actions as a condition to the project's building permit. Following compliance with the CBC and Geotechnical Investigation, impacts concerning seismic ground shaking would be less than significant.

Mitigation Measures: No mitigation measures are required.

3) Seismic-related ground failure, including liquefaction?

No Impact. Liquefaction is a seismic phenomenon in which loose, saturated, granular soils behave similarly to a fluid when subject to high-intensity ground shaking. Liquefaction occurs when three general conditions coexist: 1) shallow groundwater; 2) low density non-cohesive (granular) soils; and 3) high-intensity ground motion. Saturated, loose to medium dense, near

[1] State of California Department of Conservation, *Regulatory Maps*, http://maps.conservation.ca.gov/cgs/informationwarehouse/, accessed May 21, 2018.

surface cohesionless soils exhibit the highest liquefaction potential, while dry, dense, cohesionless soils and cohesive soils exhibit low to negligible liquefaction potential. In general, cohesive soils are not considered susceptible to liquefaction. Effects of liquefaction on level ground include settlement, sand boils, and bearing capacity failures below structures. Dynamic settlement of dry loose sands can occur as the sand particles tend to settle and densify as a result of a seismic event.

According to the Geotechnical Investigation, the project site is not located within a designated Liquefaction Hazard Zone. Based on the seismic designation for the project site and the subsurface exploration conducted as part of the Geotechnical Investigation, the potential for ground failure (i.e., landsliding, ground lurching, and shallow ground rupture) is considered unlikely. No impact would occur in this regard.

Mitigation Measures: No mitigation measures are required.

4) Landslides?

No Impact. Seismically induced landslides can overrun structures, people or property, sever utility lines, and block roads. According to the Geotechnical Investigation, the project site does not lie within a designated Landslide Hazard Zone. The project site is generally level and is not located near unstable slopes. Thus, project implementation would not expose people or structures to landslide hazards. No impact would occur.

Mitigation Measures: No mitigation measures are required.

b) Result in substantial soil erosion or the loss of topsoil?

Less Than Significant Impact. Erosion is the movement of rock and soil from place to place, and is a natural process. Common agents of erosion in the project region include wind and flowing water. Significant erosion typically occurs on steep slopes where stormwater and high winds can carry topsoil down hillsides. Erosion can be increased greatly by earthmoving activities if erosion-control measures are not employed.

Grading and earthwork activities associated with project construction would expose soils to potential short-term erosion by wind and water. All demolition and construction activities would be subject to compliance with the CBC. In addition, project construction would be required to comply with the water quality management measures identified in Municipal Code Section 7.01.050, *Controls for Water Quality Management*. The project would also be required to demonstrate compliance with South Coast Air Quality District Rule 403, which would reduce the potential for wind erosion during construction through the implementation of dust control measures. Following compliance with the established regulatory framework (i.e., Municipal Code Chapter 7.01.050 and SCAQMD Rule 403), impacts during construction would be less than significant.

Long-term operational impacts related to soil erosion or loss of topsoil would be required to comply with the requirements set forth in the project's Water Quality Management Plan (WQMP) in compliance with Municipal Code Chapter 7.01, *Water Quality and Stormwater Discharges*; refer to Appendix 8.5, *Hydrology and Water Quality Reports*. The project's WQMP includes non-structural best management practices (BMPs), such as education materials for property owners, tenants, and occupants; activity restrictions; common area landscape management; BMP maintenance; underground (infiltration) storage tank compliance; common area litter control;

employee training; common area catch basin inspection; and street sweeping private streets and parking lots. Structural BMPs included in the project's WQMP include providing storm drain system stenciling and drainage; designing and constructing trash and waste storage areas; and using efficient irrigation systems and landscaping designs. Additionally, proposed low impact development (LID) BMPs would include roof downspouts, grated inlets, subsurface infiltration galleries, a debris and trash separator unit, and an underground infiltration system. The BMPs identified in the project's WQMP would reduce the project's potential operational impacts concerning soil erosion or loss of topsoil. The project site is located in a highly urbanized area with minimal elevation changes (approximately 159.8 feet above mean sea level [amsl] along the northeast corner of the site to 156.7 amsl along the southwest corner of the site). Any exposed soil would be minimal and associated with proposed landscaping within the site. Project operations would not result in substantial soil erosion or loss of topsoil during operations and no impact would occur in this regard.

Mitigation Measures: No mitigation measures are required.

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 an on-site or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?

Less Than Significant Impact. The proposed project site is located within a seismically-active area. Evaluation of liquefaction and landslides is provided in Responses 4.6(a)(3) and 4.6(a)(4), respectively.

LATERAL SPREADING

Lateral spreading is a phenomenon in which large blocks of intact, non-liquefied soil move down slope on a liquefied soil layer. Lateral spreading is often a regional event. For lateral spreading to occur, the liquefiable soil zone must be laterally continuous, unconstrained laterally, and free to move along sloping ground. The project site's potential for lateral spreading is considered low based on its relatively flat topography, distance from any slopes, and low potential for liquefaction. No impacts are anticipated in this regard.

SOIL SHRINKAGE AND SUBSIDENCE

According to the Geotechnical Investigation, the project site is underlain by fill materials consisting of generally moist, very loose silty sand with trace to little clay. Native soils (i.e., generally damp to very moist, very loose to medium density silty sand and clayey sand, and soft sandy clay) are encountered below the fill materials. On-site soils were determined to have a low collapse potential. Notwithstanding, the City of Orange Building Division would ensure incorporation of the Geotechnical Investigation's recommended actions as a condition to the project's building permit. As a result, impacts concerning soil shrinkage would be less than significant.

SEISMICALLY-INDUCED SETTLEMENT

According to the Geotechnical Investigation, the maximum estimated settlement is considered within tolerable limits for the proposed structure provided estimated settlement is considered in the project's structural design. Section 7.4 of the Geotechnical Investigation includes project-specific foundation recommendations for fill placement and compaction. The City of Orange Building Division would ensure incorporation of the Geotechnical Investigation's recommended

actions as a condition to the project's building permit. As a result, impacts concerning seismically-induced settlement would be less than significant.

Mitigation Measures: No mitigation measures are required.

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

Less Than Significant Impact. Expansive soils are defined as soils possessing clay particles that react to moisture changes by shrinking (when dry) or swelling (when wet). According to the Geotechnical Investigation, the soils on the project site have very low expansion potential. Recommendations for foundation construction are outlined in Section 7.4, *Foundation Recommendations*, of the Geotechnical Investigation. Following implementation of the Geotechnical Investigations recommendations, impacts in this regard would be less than significant.

Mitigation Measures: No mitigation measures are required.

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?

No Impact. The project would not involve the use of septic tanks or alternative wastewater disposal systems, and no impacts would occur in this regard.

Mitigation Measures: No mitigation measures are required.

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4.7 GREENHOUSE GAS EMISSIONS

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			✓	
b. Conflict with an applicable plan, policy, or regulations adopted for the purpose of reducing the emissions of greenhouse gases?			✓	

GLOBAL CLIMATE CHANGE

California is a substantial contributor of global greenhouse gases (GHGs), emitting over 440 million tons of carbon dioxide (CO_2) per year.1 Climate studies indicate that California is likely to see an increase of three to four degrees Fahrenheit over the next century. Methane (CH_4) is also an important GHG that potentially contributes to global climate change. GHGs are global in their effect, which is to increase the earth's ability to absorb heat in the atmosphere. As primary GHGs have a long lifetime in the atmosphere, accumulate over time, and are generally well-mixed, their impact on the atmosphere is mostly independent of the point of emission.

The impact of human activities on global climate change is apparent in the observational record. Air trapped by ice has been extracted from core samples taken from polar ice sheets to determine the global atmospheric variation of CO_2, CH_4, and nitrous oxide (N_2O) from before the start of industrialization (approximately 1750), to over 650,000 years ago. For that period, it was found that CO_2 concentrations ranged from 180 to 300 parts per million. For the period from approximately 1750 to the present, global CO_2 concentrations increased from a pre-industrialization period concentration of 280 to 379 parts per million in 2005, with the 2005 value far exceeding the upper end of the pre-industrial period range. As of April 2018, the highest monthly average concentration of carbon dioxide in the atmosphere was recorded at 410 ppm.2

REGULATIONS AND SIGNIFICANCE CRITERIA

Federal

To date, no national standards have been established for nationwide GHG reduction targets, nor have any regulations or legislation been enacted specifically to address climate change and GHG emissions reduction at the project level. Various efforts have been promulgated at the Federal level to improve fuel economy and energy efficiency to address climate change and its associated effects.

1 California Environmental Protection Agency, *California Greenhouse Gas Emission Inventory - 2017 Edition*, http://www.arb.ca.gov/cc/inventory/data/data.htm, accessed June 6, 2018.

2 Scripps Institution of Oceanography, *Carbon Dioxide in the Atmosphere Hits Record High Monthly Average*, https://scripps.ucsd.edu/programs/keelingcurve/2018/05/02/carbon-dioxide-in-the-atmosphere-hits-record-high-monthly-average/, accessed June 6, 2018.

Energy Independence and Security Act of 2007. The Energy Independence and Security Act of 2007 (December 2007), among other key measures, requires the following, which would aid in the reduction of national GHG emissions:

- Increase the supply of alternative fuel sources by setting a mandatory Renewable Fuel Standard requiring fuel producers to use at least 36 billion gallons of biofuel in 2022.

- Set a target of 35 miles per gallon for the combined fleet of cars and light trucks by model year 2020, and direct the National Highway Traffic Safety Administration (NHTSA) to establish a fuel economy program for medium- and heavy-duty trucks and create a separate fuel economy standard for work trucks.

- Prescribe or revise standards affecting regional efficiency for heating and cooling products and procedures for new or amended standards, energy conservation, energy efficiency labeling for consumer electronic products, residential boiler efficiency, electric motor efficiency, and home appliances.

U.S. Environmental Protection Agency Endangerment Finding. The EPA authority to regulate GHG emissions stems from the U.S. Supreme Court decision in *Massachusetts v. EPA* (2007). The Supreme Court ruled that GHGs meet the definition of air pollutants under the existing Clean Air Act and must be regulated if these gases could be reasonably anticipated to endanger public health or welfare. Responding to the Court's ruling, the EPA finalized an endangerment finding in December 2009. Based on scientific evidence it found that six GHGs (carbon dioxide [CO_2], methane [CH_4], nitrous oxide [N_2O], hydrofluorocarbons [HFCs], perfluorocarbons [PFCs], and sulfur hexafluoride [SF_6]) constitute a threat to public health and welfare. Thus, it is the Supreme Court's interpretation of the existing Act and the EPA's assessment of the scientific evidence that form the basis for the EPA's regulatory actions.

State

Various Statewide and local initiatives to reduce the State's contribution to GHG emissions have raised awareness that, even though the various contributors to and consequences of global climate change are not yet fully understood, global climate change is under way, and there is a real potential for severe adverse environmental, social, and economic effects in the long term. Every nation emits GHGs and as a result makes an incremental cumulative contribution to global climate change; therefore, global cooperation will be required to reduce the rate of GHG emissions enough to slow or stop the human-caused increase in average global temperatures and associated changes in climatic conditions.

Assembly Bill 1493. AB 1493 (also known as the Pavley Bill) requires that CARB develop and adopt, by January 1, 2005, regulations that achieve "the maximum feasible reduction of GHG emitted by passenger vehicles and light-duty trucks and other vehicles determined by CARB to be vehicles whose primary use is noncommercial personal transportation in the State."

To meet the requirements of AB 1493, CARB approved amendments to the California Code of Regulations (CCR) in 2004 by adding GHG emissions standards to California's existing standards for motor vehicle emissions. Amendments to CCR Title 13, Sections 1900 and 1961 and adoption of 13 CCR Section 1961.1 require automobile manufacturers to meet fleet-average GHG emissions limits for all passenger cars, light-duty trucks within various weight criteria, and medium-duty weight classes for passenger vehicles (i.e., any medium-duty vehicle with a gross vehicle weight rating less than 10,000 pounds that is designed primarily to transport people),

beginning with the 2009 model year. Emissions limits are reduced further in each model year through 2016. When fully phased in, the near-term standards will result in a reduction of about 22 percent in GHG emissions compared to the emissions from the 2002 fleet, while the mid-term standards will result in a reduction of about 30 percent.

Assembly Bill 32 (California Global Warming Solutions Act of 2006). California passed the California Global Warming Solutions Act of 2006 (AB 32; California Health and Safety Code Division 25.5, Sections 38500 - 38599). AB 32 establishes regulatory, reporting, and market mechanisms to achieve quantifiable reductions in GHG emissions and establishes a cap on Statewide GHG emissions. AB 32 requires that Statewide GHG emissions be reduced to 1990 levels by 2020. AB 32 specifies that regulations adopted in response to AB 1493 should be used to address GHG emissions from vehicles. However, AB 32 also includes language stating that if the AB 1493 regulations cannot be implemented, then CARB should develop new regulations to control vehicle GHG emissions under the authorization of AB 32.

Senate Bill 375. SB 375, signed in September 2008 (Chapter 728, Statutes of 2008), aligns regional transportation planning efforts, regional GHG reduction targets, and land use and housing allocation. SB 375 requires Metropolitan Planning Organizations (MPOs) to adopt a sustainable communities' strategy (SCS) or alternative planning strategy (APS) that will prescribe land use allocation in that MPOs regional transportation plan. CARB, in consultation with MPOs, will provide each affected region with reduction targets for GHGs emitted by passenger cars and light trucks in the region for the years 2020 and 2035. These reduction targets will be updated every eight years but can be updated every four years if advancements in emissions technologies affect the reduction strategies to achieve the targets. CARB is also charged with reviewing each MPO's SCS or APS for consistency with its assigned targets. If MPOs do not meet the GHG reduction targets, transportation projects may not be eligible for funding programmed after January 1, 2012.

Executive Order S-1-07. Executive Order S-1-07 proclaims that the transportation sector is the main source of GHG emissions in California, generating more than 40 percent of Statewide emissions. It establishes a goal to reduce the carbon intensity of transportation fuels sold in California by at least ten percent by 2020. This order also directs California Air Resources Board (CARB) to determine whether this Low Carbon Fuel Standard could be adopted as a discrete early-action measure as part of the effort to meet the mandates in AB 32.

Executive Order S-3-05. Executive Order S-3-05 set forth a series of target dates by which Statewide emissions of GHGs would be progressively reduced, as follows:

- By 2010, reduce GHG emissions to 2000 levels;
- By 2020, reduce GHG emissions to 1990 levels; and
- By 2050, reduce GHG emissions to 80 percent below 1990 levels.

The Executive Order directed the secretary of the California Environmental Protection Agency (Cal/EPA) to coordinate a multi-agency effort to reduce GHG emissions to the target levels. The secretary will also submit biannual reports to the governor and California Legislature describing the progress made toward the emissions targets, the impacts of global climate change on California's resources, and mitigation and adaptation plans to combat these impacts. To comply with the executive order, the secretary of Cal/EPA created the California Climate Action Team, made up of members from various State agencies and commissions. The team released its first

report in March 2006. The report proposed to achieve the targets by building on the voluntary actions of California businesses, local governments, and communities and through State incentive and regulatory programs.

Executive Order S-13-08. Executive Order S-13-08 seeks to enhance the State's management of climate impacts including sea level rise, increased temperatures, shifting precipitation, and extreme weather events by facilitating the development of State's first climate adaptation strategy. This will result in consistent guidance from experts on how to address climate change impacts in the State of California.

Executive Order S-14-08. Executive Order S-14-08 expands the State's Renewable Energy Standard to 33 percent renewable power by 2020. Additionally, Executive Order S-21-09 (signed on September 15, 2009) directs CARB to adopt regulations requiring 33 percent of electricity sold in the State come from renewable energy by 2020. CARB adopted the "Renewable Electricity Standard" on September 23, 2010, which requires 33 percent renewable energy by 2020 for most publicly owned electricity retailers.

Executive Order S-20-04. Executive Order S-20-04, the California Green Building Initiative, (signed into law on December 14, 2004), establishes a goal of reducing energy use in State-owned buildings by 20 percent from a 2003 baseline by 2015. It also encourages the private commercial sector to set the same goal. The initiative places the California Energy Commission (CEC) in charge of developing a building efficiency benchmarking system, commissioning and retro-commissioning (commissioning for existing commercial buildings) guidelines, and developing and refining building energy efficiency standards under Title 24 to meet this goal.

Title 24, Part 6. California's Energy Efficiency Standards for Residential and Nonresidential Buildings, located at Title 24, Part 6 of the California Code of Regulations and commonly referred to as "Title 24," were established in 1978 in response to a legislative mandate to reduce California's energy consumption. Title 24 requires the design of building shells and building components to conserve energy. The standards are updated periodically to allow consideration and possible incorporation of new energy efficiency technologies and methods. The CEC adopted the 2016 Title 24 standards, which became effective on January 1, 2017, and are applicable to the project.[3] The 2016 standards continue to improve upon the 2013 Title 24 standards for new construction of, and additions and alterations to, residential and non-residential buildings.[4] Compliance with Title 24 is enforced through the building permit process.

Title 24, Part 11. The California Green Building Standards Code (California Code of Regulations, Title 24, Part 11), commonly referred to as the CALGreen Code, went into effect on January 1, 2017. Most mandatory measure changes in the 2016 CALGreen Code from the previous 2013 CALGreen Code were related to the definitions and to the clarification or addition of referenced manuals, handbooks, and standards. For example, several definitions related to energy that were added or revised affect electric vehicles chargers and charging and hot water recirculation systems. For new multi-family dwelling units, the residential mandatory measures were revised to provide additional electric vehicle charging space requirements, including quantity, location, size, single EV space, multiple EV spaces, and identification. For nonresidential mandatory

3 CEC, *2016 Building Energy Efficiency Standards*, www.energy.ca.gov/title24/2016standards/, accessed June 27, 2018.

4 Ibid.

measures, the number of required EV charging spaces has been revised in its entirety.[5] Compliance with Title 24 is enforced through the building permit process.

Executive Order S-21-09. Executive Order S-21-09, 33 percent Renewable Energy for California, directs CARB to adopt regulations to increase California's Renewable Portfolio Standard (RPS) to 33 percent by 2020. This builds upon SB 1078 (2002) which established the California RPS program, requiring 20 percent renewable energy by 2017, and SB 107 (2006) which advanced the 20 percent deadline to 2010, a goal which was expanded to 33 percent by 2020 in the 2005 Energy Action Plan II.

Senate Bill 97. On June 19, 2008, the Office of Planning and Research (OPR) released a technical advisory on addressing climate change. This guidance document outlines suggested components to CEQA disclosure, including quantification of GHG emissions from a project's construction and operation; determination of significance of the project's impact to climate change; and if the project is found to be significant, the identification of suitable alternatives and mitigation measures.

SB 97, passed in August 2007, is designed to work in conjunction with CEQA and AB 32. SB 97 requires OPR to prepare and develop guidelines for the mitigation of GHG emissions or the effects thereof, including, but not limited to, the effects associated with transportation and energy consumption. The Draft Guidelines Amendments for Greenhouse Gas Emissions ("Guidelines Amendments") were adopted on December 30, 2009, and address the specific obligations of public agencies when analyzing GHG emissions under CEQA to determine a project's effects on the environment.

However, neither a threshold of significance nor any specific mitigation measures are included or provided in the Guidelines Amendments.[6] The Guidelines Amendments require a lead agency to make a good-faith effort, based on the extent possible on scientific and factual data, to describe, calculate, or estimate the amount of GHG emissions resulting from a project. The Guidelines Amendments give discretion to the lead agency whether to: (1) use a model or methodology to quantify GHG emissions resulting from a project, and which model or methodology to use; or (2) rely on a qualitative analysis or performance-based standards. Furthermore, the Guidelines Amendments identify three factors that should be considered in the evaluation of the significance of GHG emissions:

1. The extent to which a project may increase or reduce GHG emissions as compared to the existing environmental setting;

2. Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project; and

3. The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions.[7]

5 Ibid.

6 See 14 California Code of Regulations Section 15064.7 (generally giving discretion to lead agencies to develop and publish thresholds of significance for use in the determination of the significance of environmental effects), 15064.4 (giving discretion to lead agencies to determine the significance of impacts from GHGs).

7 14 California Code of Regulations Section 15064.4(b).

The administrative record for the Guidelines Amendments also clarifies "that the effects of greenhouse gas emissions are cumulative, and should be analyzed in the context of California Environmental Quality Act's requirements for cumulative impact analysis."[8]

The California Natural Resources Agency is required to periodically update the Guidelines Amendments to incorporate new information or criteria established by CARB pursuant to AB 32. Senate Bill 97 applies to any environmental impact report (EIR), negative declaration, mitigated negative declaration, or other document required by CEQA, which has not been finalized.

Senate Bills 1078 and 107. SB 1078 (Chapter 516, Statutes of 2002) requires retail sellers of electricity, including investor-owned utilities and community choice aggregators, to provide at least 20 percent of their supply from renewable sources by 2017. SB 107 (Chapter 464, Statutes of 2006) changed the target date to 2010.

Senate Bill 1368. SB 1368 (Chapter 598, Statutes of 2006) is the companion bill of AB 32 and was signed into law in September 2006. SB 1368 required the California Public Utilities Commission to establish a performance standard for baseload generation of GHG emissions by investor-owned utilities by February 1, 2007. SB 1368 also required the CEC to establish a similar standard for local publicly owned utilities by June 30, 2007. These standards could not exceed the GHG emissions rate from a baseload combined-cycle, natural gas fired plant. Furthermore, the legislation states that all electricity provided to California, including imported electricity, must be generated by plants that meet the standards set by California Public Utilities Commission and CEC.

Senate Bill 32 (SB 32). Signed into law on September 2016, SB 32 codifies the 2030 GHG reduction target in Executive Order B-30-15 (40 percent below 1990 levels by 2030). The bill authorizes CARB to adopt an interim GHG emissions level target to be achieved by 2030. CARB also must adopt rules and regulations in an open public process to achieve the maximum, technologically feasible, and cost-effective GHG reductions.

CARB Scoping Plan. On December 11, 2008, CARB adopted its Scoping Plan, which functions as a roadmap to achieve the California GHG reductions required by AB 32 through subsequently enacted regulations. CARB's Scoping Plan contains the main strategies California would implement to reduce the projected 2020 "Business as Usual" (BAU) emissions to 1990 levels, as required by AB 32. These strategies are intended to reduce CO_2eq[9] emissions by 174 million metric tons (MT). This reduction of 42 million MT CO_2eq, or almost ten percent from 2002 to 2004 average emissions, would be required despite the population and economic growth forecasted through 2020.

CARB's Scoping Plan calculates 2020 BAU emissions as those expected to occur in the absence of any GHG reduction measures. The 2020 BAU emissions estimate was derived by projecting emissions from a past baseline year using growth factors specific to each of the different economic sectors (e.g., transportation, electrical power, commercial and residential, industrial, etc.). CARB used three-year average emissions, by sector, for 2002 to 2004 to forecast emissions to 2020. When CARB's Scoping Plan process was initiated, 2004 was the most recent year for which actual data was available. The measures described in CARB's Scoping Plan are intended to

8 Letter from Cynthia Bryant, Director of the Governor's Office of Planning and Research to Mike Chrisman, California Secretary for Natural Resources, dated April 13, 2009.

9 Carbon Dioxide Equivalent (CO_2eq) - A metric measure used to compare the emissions from various greenhouse gases based upon their global warming potential (GWP).

reduce the projected 2020 BAU to 1990 levels, as required by AB 32. On February 10, 2014, CARB released the draft proposed first update. On May 22, 2014, CARB approved the First Update to the AB 32 Scoping Plan. The update also defines CARB's climate change priorities for the next five years, and sets the groundwork to each long-term goal set forth in Executive Orders S-3-05 and B-15-2012. Lastly, the update highlights California's progress toward meeting the "near-term" 2020 GHG emission reduction goals defined in the initial Scoping Plan, and evaluates how to align the State's "longer-term" GHG reduction strategies with other State policy priorities in water, waste, natural resources, clean energy, transportation, and land use.

On January 20, 2017, CARB released the proposed Second Update to the Scoping Plan, which identifies the State's post-2020 reduction strategy. The Second Update was approved on December 14, 2017, and reflects the 2030 target of a 40 percent reduction below 1990 levels, set by Executive Order B-30-15 and codified by SB 32.[10] Key programs that the Second Update builds upon include the Cap-and-Trade Regulation, the Low Carbon Fuel Standard, and much cleaner cars, trucks and freight movement, utilizing cleaner, renewable energy, and strategies to reduce methane emissions from agricultural and other wastes. The 2017 Scoping Plan establishes a new emissions limit of 260 million $MTCO_2e$ for the year 2030, which corresponds to a 40 percent decrease in 1990 levels by 2030.

California's climate strategy will require contributions from all sectors of the economy, including the land base, and will include enhanced focus on zero- and near-zero-emission vehicle technologies; continued investment in renewables, including solar roofs, wind, and other distributed generation; greater use of low carbon fuels; integrated land conservation and development strategies; coordinated efforts to reduce emissions of short-lived climate pollutants (methane, black carbon, and fluorinated gases); and an increased focus on integrated land use planning to support livable, transit-connected communities and conservation of agricultural and other lands. In addition to Statewide strategies, the 2017 Scoping Plan also identifies local governments as essential partners in achieving the State's long-term GHG reduction goals and identifies local actions to reduce GHG emissions. CARB recommends that local governments achieve a community-wide goal to achieve emissions of no more than 6 $MTCO_2eq$ or less per capita by 2030 and 2 $MTCO_2eq$ or less per capita by 2050. For CEQA projects, CARB states that lead agencies may develop evidenced-based bright-line numeric thresholds (consistent with the Scoping Plan and the State's long-term GHG goals) and projects with emissions over that amount may be required to incorporate on-site design features and mitigation measures that avoid or minimize project emissions to the degree feasible; or, a performance-based metric using a climate action plan or other plan to reduce GHG emissions is appropriate.

Center for Biological Diversity v. California Department of Fish and Wildlife. The California Supreme Court's decision published on November 30, 2015, in the *Center for Biological Diversity v. California Department of Fish and Wildlife* (Case No. 217763) (also known as the "Newhall Ranch Case") reviewed the methodology used to analyze GHG emissions in an EIR prepared for a project that proposed 20,885 dwelling units with 58,000 residents on 12,000 acres of undeveloped land in a rural area of the City of Santa Clara. The EIR used a BAU approach to determine whether the project would impede the State's compliance with statutory emissions reduction mandate established by the AB 32 Scoping Plan. The Court did not invalidate the BAU approach entirely but did hold that "the Scoping Plan nowhere related that statewide level of reduction effort to the percentage of reduction that would or should be required from individual projects and nothing CDFW or Newhall have cited in the administrative record indicates the

[10] California Air Resources Board, *California's 2017 Climate Change Scoping Plan*, November 2017, https://www.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf, accessed June 27, 2018.

required percentage reduction from business as usual is the same for an individual project as for the entire state population and economy."[11]

The California Supreme Court suggested regulatory consistency as a pathway to compliance, by stating that a lead agency might assess consistency with AB 32's goal in whole or in part by looking to compliance with regulatory programs designed to reduce GHG emissions from particular activities. The Court recognized that to the extent a project's design features comply with or exceed the regulations outlined in the Scoping Plan, and adopted by CARB or other state agencies, a lead agency could appropriately rely on their use as showing compliance with performance-based standards adopted to fulfill a statewide plan for the reduction or mitigation of GHG emissions. This approach is consistent with CEQA Guidelines Section 15064, which provides that a determination that an impact is not cumulatively considerable may rest on compliance with previously adopted plans or regulations, including plans or regulations for the reduction of GHG emissions. Importantly, the Court also suggested: "A lead agency may rely on existing numerical thresholds of significance for greenhouse gas emissions" (bright line threshold approach) if supported by substantial evidence.

Regional

2016-2040 RTP/SCS. The Southern California Association of Governments (SCAG) adopted the *2016–2040 Regional Transportation Plan/Sustainable Communities Strategy* (2016–2040 RTP/SCS) on April 7, 2016. The 2016–2040 RTP/SCS reaffirms the land use policies that were incorporated into the 2012–2035 RTP/SCS. These foundational policies, which guided the development of the 2016–2040 RTP/SCS's strategies for land use, include the following:

- Identify regional strategic areas for infill and investment;
- Structure the plan on a three-tiered system of centers development;[12]
- Develop "Complete Communities";
- Develop nodes on a corridor;
- Plan for additional housing and jobs near transit;
- Plan for changing demand in types of housing;
- Continue to protect stable, existing single-family areas;
- Ensure adequate access to open space and preservation of habitat; and
- Incorporate local input and feedback on future growth.

The 2016–2040 RTP/SCS recognizes that transportation investments and future land use patterns are inextricably linked, and continued recognition of this close relationship will help the

11 Center for Biological Diversity v. California Department of Fish and Wildlife (Case No. 217763), page 20.

12 Complete language: "Identify strategic centers based on a three-tiered system of existing, planned and potential relative to transportation infrastructure. This strategy more effectively integrates land use planning and transportation investment." A more detailed description of these strategies and policies can be found on pp. 90–92 of the SCAG 2008 Regional Transportation Plan, adopted in May 2008.

region make choices that sustain existing resources and expand efficiency, mobility, and accessibility for people across the region. In particular, the 2016–2040 RTP/SCS draws a closer connection between where people live and work, and it offers a blueprint for how Southern California can grow more sustainably. The 2016–2040 RTP/SCS also includes strategies focused on compact infill development and economic growth by building the infrastructure the region needs to promote the smooth flow of goods and easier access to jobs, services, educational facilities, healthcare and more.

The 2016–2040 RTP/SCS states that the SCAG region is home to about 18.3 million people in 2012 and currently includes approximately 5.9 million homes and 7.4 million jobs.[13] By 2040, the integrated growth forecast projects that these figures will increase by 3.8 million people, with nearly 1.5 million more homes and 2.4 million more jobs. High Quality Transit Areas[14] (HQTAs) will account for 3 percent of regional total land but are projected to accommodate 46 percent and 55 percent of future household and employment growth respectively between 2012 and 2040. The 2016–2040 RTP/SCS overall land use pattern reinforces the trend of focusing new housing and employment in the region's HQTAs. HQTAs are a cornerstone of land use planning best practice in the SCAG region because they concentrate roadway repair investments, leverage transit and active transportation investments, reduce regional life cycle infrastructure costs, improve accessibility, create local jobs, and have the potential to improve public health and housing affordability.

The 2016–2040 RTP/SCS is expected to reduce per capita transportation emissions by 8 percent by 2020 and 18 percent by 2035. This level of reduction would meet the region's GHG targets set by CARB of 8 percent per capita by 2020 and exceed the region's GHG target set by CARB of 13 percent per capita by 2035.[15] Furthermore, although there are no per capita GHG emission reduction targets for passenger vehicles set by CARB for 2040, the 2016–2040 RTP/SCS's GHG emission reduction trajectory shows that more aggressive GHG emission reductions are projected for 2040.[16] The 2016–2040 RTP/SCS would result in an estimated 21 percent decrease in per capita GHG emissions by 2040. By meeting and exceeding the SB 375 targets for 2020 and 2035, as well as achieving an approximately 21-percent decrease in per capita GHG emissions by 2040 (an additional 3-percent reduction in the five years between 2035 [18 percent] and 2040 [21 percent]), the 2016–2040 RTP/SCS is expected to fulfill and exceed its portion of SB 375 compliance with respect to meeting the state's GHG emission reduction goals.

South Coast Air Quality Management District Thresholds. At this time, there is no absolute consensus in the State of California among CEQA lead agencies regarding the analysis of global climate change and the selection of significance criteria. In fact, numerous organizations, both public and private, have released advisories and guidance with recommendations designed to assist decision-makers in the evaluation of GHG emissions given the current uncertainty regarding when emissions reach the point of significance. Lead agencies may elect to rely on thresholds of significance recommended or adopted by State or regional agencies with expertise in the field of global climate change.

13 2016-2040 RTP/SCS population growth forecast methodology includes data for years 2012, 2020, 2035 and 2040.

14 Defined by the 2016–2040 RTP/SCS as generally walkable transit villages or corridors that are within 0.5 mile of a well-serviced transit stop or a transit corridor with 15-minute or less service frequency during peak commute hours

15 Southern California Association of Governments, *2016–2040 Regional Transportation Plan/Sustainable Communities Strategy*, Executive Summary, p. 8, April 2016.

16 Southern California Association of Governments, *Final Program Environmental Impact Report for 2016–2040, RTP/SCS*, Figure 3.8.4-1, April 2016.

The SCAQMD has formed a GHG CEQA Significance Threshold Working Group (Working Group) to provide guidance to local lead agencies on determining significance for GHG emissions in their CEQA documents. As of the last Working Group meeting (Meeting No. 15) held in September 2010, the SCAQMD is proposing to adopt a tiered approach for evaluating GHG emissions for development projects where SCAQMD is not the lead agency.[17]

With the tiered approach, the project is compared with the requirements of each tier sequentially and would not result in a significant impact if it complies with any tier. Tier 1 excludes projects that are specifically exempt from SB 97 from resulting in a significant impact. Tier 2 excludes projects that are consistent with a GHG reduction plan that has a certified final CEQA document and complies with AB 32 GHG reduction goals. Tier 3 excludes projects with annual emissions lower than a screening threshold. For all non-industrial projects, the SCAQMD is proposing a screening threshold of 3,000 $MTCO_2eq$ per year. SCAQMD concluded that projects with emissions less than the screening threshold would not result in a significant cumulative impact.

Tier 4 consists of three decision tree options. Under the Tier 4 first option, the project would be excluded if design features and/or mitigation measures resulted in emissions 30 percent lower than business as usual emissions. However, the Working Group did not provide a recommendation for this approach. The Working Group folded the Tier 4 second option into the third Option. Under the Tier 4 third option, the project would be excluded if it was below an efficiency-based threshold of 4.8 $MTCO_2eq$ per service population (SP) per year or 3.0 $MTCO_2eq$ per SP for post-2020 projects.[18] Tier 5 would exclude projects that implement offsite mitigation (GHG reduction projects) or purchase offsets to reduce GHG emission impacts to less than the proposed screening level.

Tier 3 excludes projects with annual emissions lower than a screening threshold. For all non-industrial projects, the SCAQMD proposes a screening threshold of 3,000 $MTCO_2eq$ per year. SCAQMD concluded that projects with emissions less than the screening threshold would not result in a significant cumulative impact. However, for the purposes of this project, the Tier 3 threshold is considered a general reference threshold. The analysis of this project is based on qualitative thresholds of significance set forth below from Section VII of Appendix G to the CEQA Guidelines and compliance with applicable compliance regulations.

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

Less Than Significant Impact. Implementation of the proposed project would result in direct and indirect emissions of CO_2, CH_4, and N_2O. Implementation of the project would not result in emissions of other GHGs (e.g., water vapor, Hydrofluorocarbons, Perfluorocarbons, Sulfur hexafluoride, Hydrochlorofluorocarbons, 1,1,1 trichloroethane, and chlorofluorocarbons) that would facilitate a meaningful analysis. Therefore, this analysis focuses on these three forms (CO_2, CH_4, and N_2O) of GHG emissions. Direct project-related GHG emissions include emissions from construction activities, area sources, and mobile sources (described below), while indirect sources include emissions from electricity consumption, water demand, and solid waste

17 The most recent SCAQMD GHG CEQA Significance Threshold Working Group meeting was held on September 2010.

18 The project-level efficiency-based threshold of 4.8 $MTCO_2eq$ per SP per year is relative to the 2020 target date. The SCAQMD has also proposed efficiency-based thresholds relative to the 2035 target date to be consistent with the GHG reduction target date of SB 375. GHG reductions by the SB 375 target date of 2035 would be approximately 40 percent. Applying this 40 percent reduction to the 2020 targets results in an efficiency threshold for plans of 4.1 $MTCO_2eq$ per SP per year and an efficiency threshold at the project level of 3.0 $MTCO_2eq$/year.

generation. Operational GHG estimations are based on energy emissions from natural gas usage, electricity consumption, water demand, wastewater generation, solid waste generation, and automobile emissions. Project GHG emissions were calculated using the California Emissions Estimator Model (CalEEMod) version 2016.3.2, which relies upon trip generation data, and specific land use information to calculate emissions. As indicated in the *Chick-fil-A Main Street Project Traffic Impact Analysis* (Traffic Impact Analysis), prepared by Linscott Law & Greenspan Engineers, the proposed project would result in approximately 1,612 new daily trips. Table 4.7-1, *Estimated Greenhouse Gas Emissions*, presents the estimated CO_2, CH_4, and N_2O emissions of the proposed project without GHG-reducing design features and mitigation measures. The CalEEMod outputs are contained within the Appendix 8.1, *Air Quality/Greenhouse Gas Data*.

The project proposes demolition of the existing single story 8,579 square foot commercial structure to construct a Chick-fil-A restaurant, two-lane drive-thru, and 48 vehicle parking spaces. As shown in Table 4.7-1, GHG emissions resulting from both construction and operation of the proposed project would result in approximately 919.20 MTCO2eq/yr.19 Specific direct and indirect project-related sources of GHGs are discussed below.

Table 4.7-1
Estimated Greenhouse Gas Emissions

Source	CO_2	CH_4		N_2O		Total $MTCO_2eq/yr^3$
	MT/yr^1	MT/yr^1	$MTCO_2eq/yr^2$	MT/yr^1	$MTCO_2eq/yr^2$	
Construction (296.80 $MTCO_2eq/yr$ amortized over 30 years)	9.82	0.00	0.07	0.00	0.00	9.89
Area Source	0.00	0.00	0.00	0.00	0.00	0.00
Mobile Source	754.99	0.04	1.04	0.00	0.00	756.03
Energy	118.32	0.00	0.09	0.00	0.49	118.90
Water Demand	6.49	0.05	1.14	0.00	0.33	7.96
Waste	10.66	0.63	15.76	0.00	0.00	26.42
Total Proposed Project-Related Emissions[3,4]	***919.20 $MTCO_2eq/yr$***					

Notes: CO_2 (carbon dioxide); CH_4 (methane); N_2O (nitrous oxide); MT/yr (metric tons per year); $MTCO_2/yr$ (metric tons of carbon dioxide equivalent per year).

1. Emissions calculated using California Emissions Estimator Model.
2. Carbon dioxide equivalent values calculated using the United States Environmental Protection Agency Website, *Greenhouse Gas Equivalencies Calculator*, http://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator, accessed June 6, 2018.
3. Totals may be slightly off due to rounding.
4. Unmitigated GHG emissions are displayed. This represents a conservative approach which does not include Title 24 reductions.

Refer to Appendix 8.1, *Air Quality/Greenhouse Gas Data*, for detailed model input/output data.

DIRECT PROJECT-RELATED SOURCES OF GREENHOUSE GASES

- *Construction Emissions*. Construction GHG emissions from construction equipment, worker trips, soil export hauling activities, vendor trips, etc., were calculated using CalEEMod. Construction emissions are typically summed and amortized over the lifetime

19 As previously discussed, CO_2eq is a metric measure used to compare the emissions from various greenhouse gases based upon their GWP.

of a project (assumed to be 30 years), then added to the operational emissions.[20] As seen in Table 4.7-1, the proposed project would result in 296.80 $MTCO_2eq/yr$ (amortized over 30 years). The CalEEMod version 2016.3.2 was used to calculate off-road equipment usage and on-road vehicle travel emissions. CalEEMod relies upon construction phasing and project specific land use data to calculate emissions; refer to Appendix 8.1.

- *Area Source Emissions*. Area source emissions would be generated from consumer products, architectural coating, and landscaping. As shown in Table 4.7-1, the proposed project would not result in area source GHG emissions.

- *Mobile Source*. CalEEMod relies upon trip data within the *Traffic Impact Analysis* and project specific land use data to calculate mobile source emissions. The proposed project would result in approximately 1,612 new daily trips, which equates to approximately 756.03 $MTCO_2eq/year$ of mobile source-generated GHG emissions; refer to Table 4.7-1.

INDIRECT PROJECT-RELATED SOURCES OF GREENHOUSE GASES

- *Energy Consumption*. Energy consumption emissions were calculated using CalEEMod and project-specific land use data. Electricity would be provided to the project site via Southern California Edison. The proposed project would indirectly result in 118.90 $MTCO_2eq/yr$ due to energy consumption; refer to Table 4.7-1.

- *Water Demand*. The proposed project's operations would result in a demand of approximately 1.47 million gallons of water per year. Emissions from indirect energy impacts due to water supply would result in 7.96 $MTCO_2eq/yr$; refer to Table 4.7-1.

- *Solid Waste*. Solid waste associated with operations of the proposed project would result in 26.42 $MTCO_2eq/yr$; refer to Table 4.7-1.

TOTAL PROJECT-RELATED SOURCES OF GREENHOUSE GASES

As shown in Table 4.7-1, the total amount of project-related GHG emissions from direct and indirect sources combined would be 919.20 $MTCO_2eq/yr$, which is below the 3,000 $MTCO_2eq/yr$ GHG threshold. In addition, the proposed project would comply with the latest Title 24 requirements and California Green Building Code standards which would further reduce project-related GHG emissions. The project would also install energy efficient lighting and appliances throughout the project site, and incorporate water efficient irrigation systems and water reducing features/fixtures into the proposed restaurant building that would further reduce GHG emissions. Further, there are two Orange County Transportation Authority (OCTA) bus stops (routes 53 and 453) within walking distance of the project site (i.e. directly adjacent to the project site's eastern boundary) that would be accessible to patrons of the proposed Chick-fil-A restaurant. As such, additional reductions in the Project's mobile GHG emissions could occur due to access to alternative transportation options for Chick-fil-A patrons. The proposed project would result in a less than significant impact with regard to GHG emissions.

20 The project lifetime is based on the standard 30-year assumption of the South Coast Air Quality Management District (http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/year-2008-2009/ghg-meeting-13/ghg-meeting-13-minutes.pdf?sfvrsn=2).

Mitigation Measures: No mitigation measures are required.

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

Less Than Significant Impact. The project would contribute to cumulative increases in GHG emissions over time in the absence of policy intervention. As discussed below, the project would be consistent with relevant plans and policies that govern climate change such as the *City of Orange General Plan* (General Plan), AB 32 Scoping Plan, and SCAG's *2016-2040 Regional Transportation Plan/Sustainable Communities Strategy* (RTP/SCS). It should be noted that the City of Orange has not adopted a GHG reduction plan that the project can be evaluated against at the time of this analysis.

CONSISTENCY WITH THE CITY OF ORANGE GENERAL PLAN AND AB 32 SCOPING PLAN

The City's General Plan has several goals and policies that call for the City to develop policies, programs, and practices that can reduce the City's carbon footprint. The Natural Resources Element of the General Plan includes goals and policies for climate change listed below.

Goal 3.0 Prepare for and adapt to the effects of climate change and promote practices that decrease the City's contribution to climate change.

Policy 3.1 Evaluate the potential effects of climate change on the City's human and natural systems and prepare strategies that allow the City to appropriately respond and adapt.

Policy 3.2 Develop and adopt a comprehensive strategy to reduce greenhouse gases (GHGs) within Orange by at least 15 percent from current levels[21] by 2020.

Policy 3.1 is generally not applicable to evaluating a development proposal as it relates to potential strategies evaluated and prepared by the City. However, Policy 3.2 calls for the City to develop a comprehensive strategy to reduce GHGs within Orange by at least 15 percent from current levels by 2020. As discussed below, the proposed project would be consistent with the AB 32 Scoping Plan and SCAG's RTP/SCS. Further, the project is designed to meet Title 24 energy efficiency standards. The 2016 Title 24 standards are 28 percent more efficient (for electricity) than residential construction built to the 2013 Title 24 standards and 5 percent more efficient (for electricity) for non-residential construction built to 2013 Title 24 standards.[22] Additionally, as described in Table 4.7-2, *Consistency with the AB 32 Scoping Plan*, the project would utilize energy from Southern California Edison (SCE) which plans to achieve 80 percent carbon-free energy by 2030. Furthermore, the project would be consistent with the 2016–2040 RTP/SCS which would result in an estimated 8 percent decrease in per capita GHG emissions by 2020. Thus, the proposed project would not conflict with an applicable plan, policy, or regulations adopted for the purpose of reducing the emissions of greenhouse gases. A less than significant impact would result in this regard.

21 Because the General Plan was adopted in 2010, "current levels" are assumed to be the City's GHG emissions from 2010.

22 California Energy Commission, Adoption Hearing, 2016 Building Energy Efficiency Standards.

Table 4.7-2
Consistency with the AB 32 Scoping Plan

Strategy	Project Consistency
California Cap-and-Trade Program. Implement a broad-based California cap-and-trade program to provide a firm limit on emissions.	**Not Applicable.** The statewide program is not relevant to the project.
California Light-Duty Vehicle Greenhouse Gas Standards. Implement adopted Pavley standards and planned second phase of the system. Align zero-emission vehicle, alternative and renewable fuel and vehicle technology programs with long-term climate change goals.	**Not Applicable.** The development of standards is not relevant to the project.
Energy Efficiency. Maximize energy efficiency building and appliance standards and pursue additional efficiency efforts including new technologies, and new policy and mechanisms. Pursue comparable investment in energy efficiency from all retail providers of electricity in California.	**Consistent.** The project is designed to meet California Green Building Standards Code (CalGreen) and Title 24 energy efficiency standards. The standards promote the use of better windows, insulation, lighting, ventilation systems, and other features that reduce energy consumption in homes and businesses. Additionally, the project would utilize energy from Southern California Edison (SCE), which has goals to diversify its portfolio of energy sources to increase the use of renewable energy. By 2030 SCE plans to achieve 80 percent carbon-free energy.
Renewables Portfolio Standard. Achieve 33 percent renewable energy mix statewide.	**Consistent.** As previously discussed, SCE plans to achieve 80 percent carbon-free energy by 2030.
Low-Carbon Fuel Standard. Develop and adopt the Low Carbon Fuel Standard.	**Not Applicable.** The statewide program is not relevant to the project.
Vehicle Efficiency Measures. Implement light-duty vehicle efficiency measures.	**Not Applicable.** State agencies are responsible for implementing efficiency measures.
Regional Transportation-Related Greenhouse Gases. Develop regional greenhouse gas emissions reduction targets for passenger vehicles.	**Not Applicable.** The development of regional planning goals is not relevant to the project. However, the project represents an infill development within an existing urbanized area and is located near several OCTA bus routes. As a result, the project would be consistent with the smart growth objectives of the region's RTP/SCS (discussed in Table 4.7-3, *Consistency with the 2016-2040 RTP/SCS*).
Goods Movement. Implement adopted regulations for the use of shore power for ships at berth. Improve efficiency in goods movement activities.	**Not Applicable.** State agencies are responsible for implementing regulations and promoting efficiency in goods movement.
Million Solar Roofs Program. Install 3,000 MW of solar-electricity capacity under California's existing solar programs.	**Not Applicable.** The project does not include solar roofs and is not part of the proposed statewide initiative.
Medium/Heavy-Duty Vehicles. Adopt medium and heavy-duty vehicle efficiency measures.	**Not Applicable.** State agencies are responsible for implementing efficiency measures.
Industrial Emissions. Require assessment of large industrial sources to determine whether individual sources within a facility can cost-effectively reduce greenhouse gas emissions. Reduce greenhouse gas emissions from fugitive emissions from oil and gas extraction and gas transmission.	**Not Applicable.** This measure addresses industrial facilities.
High Speed Rail. Support implementation of a high speed rail system.	**Not Applicable.** This calls for the California High Speed Rail Authority and stakeholders to develop a statewide rail transportation system.

Table 4.7-2, continued

Strategy	Project Consistency
Green Building Strategy. Expand the use of green building practices to reduce the carbon footprint of California's new and existing inventory of buildings.	**Consistent.** As previously discussed, the project is designed to meet CalGreen and Title 24 energy efficiency standards. The standards would include several measures designed to reduce energy consumption.
High Global Warming Potential Gases. Adopt measures to reduce high global warming potential gases.	**Not Applicable.** State agencies are responsible for implementing these measures.
Recycling and Waste. Reduce methane emissions at landfills. Increase waste diversion, composting and other beneficial uses of organic materials and mandate commercial recycling. Move toward zero waste.	**Consistent.** Under SB 1383, the California Department of Resources Recycling and Recovery (CalRecycle) is responsible for achieving a 50 percent reduction in the level of statewide disposal of organic waste from the 2014 level by 2020 and 75-percent reduction by 2025. The project would be consistent with SB 1383, and therefore ultimately reduce methane emissions at landfills.
Sustainable Forests. Preserve forest sequestration and encourage the use of forest biomass for sustainable energy generation.	**Not Applicable.** Resource Agency departments are responsible for implementing this measure.
Water. Continue efficiency programs and use cleaner energy sources to move and treat water.	**Consistent.** As the project would comply with CalGreen and Title 24, the project would use water-efficient landscaping.
Agriculture. In the near-term, encourage investment in manure digester and at the five-year Scoping Plan update determine if the program should be made mandatory by 2020.	**Not Applicable.** The project does not include agricultural facilities.

Source: California Air Resources Board, *California's 2017 Climate Change Scoping Plan*, November 2017.

1. Southern California Edison, The Clean Power and Electrification Pathway, https://www.edison.com/content/dam/eix/documents/our-perspective/g17-pathway-to-2030-white-paper.pdf, accessed June 13, 2018.

The goal to reduce GHG emissions to 1990 levels by 2020 (Executive Order S-3-05) was codified by the Legislature as the 2006 Global Warming Solutions Act (AB 32). In 2008, CARB approved a Scoping Plan as required by AB 32.[23] The Scoping Plan has a range of GHG reduction actions which include direct regulations, alternative compliance mechanisms, monetary and non-monetary incentives, voluntary actions, market-based mechanisms such as a cap-and-trade system, and an AB 32 implementation fee to fund the program. The 2017 Scoping Plan Update identifies additional GHG reduction measures necessary to achieve the 2030 target. These measures build upon those identified in the First Update to the Scoping Plan. As shown in Table 4.7-2, impacts related to consistency with the AB 32 Scoping Plan would be less than significant.

CONSISTENCY WITH THE 2016-2040 RTP/SCS

Strategies within the 2016-2040 RTP/SCS are expected to help California reach its GHG reduction goals, with reductions in per capita transportation emissions of 9 percent by 2020 and 16 percent by 2035.24 Furthermore, although there are no per capita GHG emission reduction targets for passenger vehicles set by CARB for 2040, the 2016-2040 RTP/SCS GHG emission reduction trajectory shows that more aggressive GHG emission reductions are projected for 2040.25 Implementation of the 2016-2040 RTP/SCS would result in an estimated 8-percent decrease in per capita passenger vehicle GHG emissions by 2020, 18-percent decrease in per capita passenger vehicle GHG emissions by 2035, and 21-percent decrease in per capita

23 Climate Change Proposed Scoping Plan was approved by CARB on December 11, 2008.

24 CARB, Regional Greenhouse Gas Emission Reduction Targets Pursuant to SB 375, Resolution 10-31.

25 SCAG, Final 2016–2040, RTP/SCS, April 2016, p. 153.

passenger vehicle GHG emissions by 2040. By meeting and exceeding the SB 375 targets for 2020 and 2035, as well as achieving an approximately 21-percent decrease in per capita passenger vehicle GHG emissions by 2040 (an additional 3-percent reduction in the five years between 2035 [18 percent] and 2040 [21 percent]), the 2016-2040 RTP/SCS is expected to fulfill and exceed its portion of SB 375 compliance with respect to meeting the State's GHG emission reduction goals.

At the regional level, the 2016-2040 RTP/SCS is an applicable plan adopted for the purpose of reducing GHGs. In order to assess the project's potential to conflict with the 2016-2040 RTP/SCS, this section also analyzes the project's land use assumptions for consistency with those utilized by SCAG in its Sustainable Communities Strategy. Generally, projects are considered consistent with the provisions and general policies of applicable City and regional land use plans and regulations, such as SCAG's RTP/SCS, if they are compatible with the general intent of the plans and would not preclude the attainment of their primary goals. Table 4.7-3, *Consistency with the 2016-2040 RTP/SCS*, demonstrates the project's consistency with the Actions and Strategies set forth in the 2016-2040 RTP/SCS.[26]

As depicted in Table 4.7-3, the project is the type of land use development that is encouraged by the RTP/SCS to reduce VMT and expand multi-modal transportation options in order for the region to achieve GHG reductions from the land use and transportation sectors required by SB 375, which, in turn, advances the State's long-term climate policies.[27] By furthering implementation of SB 375, the project supports regional land use and transportation GHG reductions consistent with State regulatory requirements. Therefore, the project would be consistent with the GHG reduction-related actions and strategies contained in the 2016-2040 RTP/SCS.

Table 4.7-3
Consistency with the 2016-2040 RTP/SCS

Actions and Strategies	Responsible Party(ies)	Project Consistency Analysis
Land Use Strategies		
Reflect the changing population and demands, including combating gentrification and displacement, by increasing housing supply at a variety of affordability levels.	Local jurisdictions	**Consistent.** Although the project does not include housing, it would be consistent with this strategy by providing jobs in close proximity to housing and public transit (OCTA bus service).
Focus new growth around transit.	Local jurisdictions	**Consistent.** The project is an infill development that would be consistent with the 2016 RTP/SCS focus on growing development near transit facilities. Two bus routes currently providing stops within walking distance to the proposed project site (Bus Stops 5502 and 5523).[1]

26 As discussed in the 2016–2040 RTP/SCS, the actions and strategies included in the 2016–2040 RTP/SCS remain unchanged from those adopted in the 2012–2035 RTP/SCS.

27 As discussed above, SB 375 legislation links regional planning for housing and transportation with the GHG reduction goals outlined in AB 32.

Table 4.7-3, continued

Actions and Strategies	Responsible Party(ies)	Project Consistency Analysis
Plan for growth around livable corridors, including growth on the Livable Corridors network.	SCAG, Local jurisdictions	**Consistent.** The project is an infill development that would be consistent with the 2016 RTP/SCS focus on growing along the 2,980 miles of Livable Corridors in the region. While SCAG identified 2,980 miles of Livable Corridors along arterial roadways as part of planning studies funded through the Sustainability Planning Grant program, the land use strategies contained in the 2016 RTP/SCS are not tied to a specific corridor. The Livable Corridors strategy seeks to revitalize commercial strips though integrated transportation and land use planning that results in increased economic activity and improved mobility options, with an emphasis on fostering collaboration between neighboring jurisdictions to encourage better planning for various land uses, corridor branding, roadway improvements, and focusing retail into attractive nodes along a corridor. Although the project would require a General Plan Amendment to change the designation from NMIX to General Commercial (CG), and a Zone Change from NMU-24 to General Business (C-2), the proposed Chick-fil-A Drive-Thru Restaurant is considered a less intense development than currently allowed at the project site. Specifically, the proposed project would have a maximum floor area ratio (FAR) of 1.0, which is lower than the current NMIX maximum FAR of 1.5 for the project site. In addition, the project would add a commercial use (Chick-fil-A restaurant) to an area that is currently developed with residential and commercial uses. Further, the proposed project site is walking distance to two OCTA bus routes.
Provide more options for short trips through Neighborhood Mobility Areas and Complete Communities.	SCAG, Local jurisdictions	**Consistent.** The Complete Communities strategy supports the creation of mixed-use districts through a concentration of activities with housing and employment located in close proximity to each other. The proposed project would support this strategy by providing employment and dining options within walking distance to residential uses.
Support local sustainability planning, including developing sustainable planning and design policies, sustainable zoning codes, and Climate Action Plans.	Local jurisdictions	**Not Applicable.** While this strategy calls on local governments to adopt General Plan updates, zoning codes, and Climate Action Plans to further sustainable communities, the project would not interfere with such policymaking and would be consistent with those policy objectives.
Protect natural and farm lands, including developing conservation strategies.	SCAG, Local jurisdictions	**Consistent.** The project is an infill development that would help reduce demand for growth in urbanizing areas that threaten greenfields and open spaces.

Table 4.7-3, continued

Actions and Strategies	Responsible Party(ies)	Project Consistency Analysis
Transportation Strategies		
Preserve our existing transportation system.	SCAG, County Transportation Commissions, Local jurisdictions	**Not Applicable.** While this strategy calls on investing in the maintenance of our existing transportation system, the project would not interfere with such policymaking. However, it should be noted that the proposed project is located in close proximity to OCTA bus routes.
Manage congestion through programs like the Congestion Management Program, Transportation Demand Management, and Transportation Systems Management strategies.	County Transportation Commissions, Local jurisdictions	**Consistent.** The project is an infill development that will minimize congestion impacts on the region because of its proximity to public transit (i.e. existing OCTA bus lines).
Promote safety and security in the transportation system.	SCAG, County Transportation Commissions, Local jurisdictions	**Not Applicable.** While this strategy aims to improve the safety of the transportation system and protect users from security threats, the project would not interfere with such policymaking.
Complete our transit, passenger rail, active transportation, highways and arterials, regional express lanes, goods movement, and airport ground transportation systems.	SCAG, County Transportation Commissions, Local jurisdictions	**Not Applicable.** This strategy calls for transportation planning partners to implement major capital and operational projects that are designed to address regional growth.
Technological Innovation and 21st Century Transportation		
Promote zero-emissions vehicles.	SCAG, Local jurisdictions	**Consistent.** While this action/strategy is not necessarily applicable on a project-specific basis, the project would include one electric vehicle (EV) parking space. In addition, the proposed project is located in close proximity to OCTA bus routes, as well as walking distance to residential and commercial uses, thereby reducing vehicle miles traveled.
Promote neighborhood electric vehicles.	SCAG, Local jurisdictions	**Consistent.** The Neighborhood Electric Vehicles strategy reflects State and local policies to encourage the use of alternate modes of transportation for short trips. Thus, the proposed project would support this strategy by providing one EV parking space. Further, the proposed project would be within walking distance to residential and commercial uses.
Implement shared mobility programs.	SCAG, Local jurisdictions	**Not Applicable.** While this strategy is designed to integrate new technologies for last-mile and alternative transportation programs, the proposed project would not interfere with these emerging programs.

Notes:

1. Orange County Transportation Authority, *Next Ride Beta*, https://www.octa.net/Bus/Routes-and-Schedules/NextRide/Location/?location=33.7897033,-117.86652179999999, accessed June 14, 2018.

Source: Southern California Association of Governments, 2016-2040 RTP/SCS, Chapter 5: The Road to Greater Mobility and Sustainable Growth, April 2016.

POST-2020 ANALYSIS

Recent studies show that the State's existing and proposed regulatory framework would put the State on a pathway to reduce its GHG emissions level to 40 percent below 1990 levels by 2030, and to 80 percent below 1990 levels by 2050 if additional appropriate reduction measures are adopted.[28] Even though these studies did not provide an exact regulatory and technological roadmap to achieve the 2030 and 2050 goals, they demonstrated that various combinations of policies could allow the Statewide emissions level to remain very low through 2050, suggesting that the combination of new technologies and other regulations not analyzed in the studies could allow the State to meet the 2050 target. Subsequent to the findings of these studies, SB 32 was passed on September 8, 2016, which would require the State board to ensure that Statewide GHG are reduced to 40 percent below the 1990 level by 2030. As discussed above, the new plan, outlined in SB 32, involves increasing renewable energy use, imposing tighter limits on the carbon content of gasoline and diesel fuel, putting more electric cars on the road, improving energy efficiency, and curbing emissions from key industries.

As discussed above, SCAG's RTP/SCS establishes a regulatory framework for achieving GHG reductions from the land use and transportation sectors pursuant to SB 375 and the state's long-term climate policies. The RTP/SCS ensures VMT reductions and other measures that reduce regional emissions from the land use and transportation sectors. Specifically, implementation of the 2016 - 2040 RTP/SCS would result in an estimated 8 percent decrease in per capita GHG emissions by 2020, an 18-percent decrease in per capita GHG emissions by 2035, and a 21-percent decrease in per capita GHG emissions by 2040. By meeting and exceeding the SB 375 targets for 2020 and 2035, as well as achieving an approximately 21-percent decrease in per capita GHG emissions by 2040 (an additional 3-percent reduction in the five years between 2035 [18 percent] and 2040 [21 percent]), the 2016–2040 RTP/SCS is expected to fulfill and exceed its portion of SB 375 compliance with respect to meeting the State's GHG emission reduction goals.

As previously mentioned, the proposed project is the type of land use development that is encouraged by the RTP/SCS to reduce VMT and expand multi-modal transportation options in order for the region to achieve the GHG reductions from the land use and transportation sectors required by SB 375, which, in turn, advances the State's long-term climate policies. By furthering implementation of SB 375, the project supports regional land use and transportation GHG reductions consistent with State climate targets for 2020 and beyond. In addition, as demonstrated in Table 4.7-3, the project would be consistent with the Actions and Strategies set forth in the 2016 - 2040 RTP/SCS. Therefore, the project would be consistent with the 2016 - 2040 RTP/SCS. A less than significant impact would result in this regard.

Mitigation Measures: No mitigation measures are required.

28 Energy and Environmental Economics (E3). "Summary of the California State Agencies' PATHWAYS Project: Long-term Greenhouse Gas Reduction Scenarios" (April 2015); Greenblatt, Jeffrey, Energy Policy, "Modeling California Impacts on Greenhouse Gas Emissions" (Vol. 78, pp. 158–172). The California Air Resources Board, California Energy Commission, California Public Utilities Commission, and the California Independent System Operator engaged E3 to evaluate the feasibility and cost of a range of potential 2030 targets along the way to the state's goal of reducing GHG emissions to 80 percent below 1990 levels by 2050. With input from the agencies, E3 developed scenarios that explore the potential pace at which emission reductions can be achieved, as well as the mix of technologies and practices deployed. E3 conducted the analysis using its California PATHWAYS model. Enhanced specifically for this study, the model encompasses the entire California economy with detailed representations of the buildings, industry, transportation and electricity sectors.

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4.8 HAZARDS AND HAZARDOUS MATERIALS

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			✓	
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?		✓		
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?		✓		
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?				✓
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?				✓
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?				✓
g. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?			✓	
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?				✓

This section is based on the following hazardous materials documentation (refer to Appendix 8.4, *Hazardous Materials Documentation*):

- Giles Engineering Associates, Inc., *Phase I Environmental Site Assessment* (Phase I ESA), November 21, 2016; and
- Giles Engineering Associates, Inc., *Asbestos and Lead Identification Survey* (Asbestos and Lead Survey), May 24, 2017.

a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Less Than Significant Impact. Substantial risks associated with hazardous materials are not typically associated with restaurant uses. Minor cleaning products along with the occasional use of pesticides and herbicides for landscape maintenance of the project site are generally the extent of hazardous materials that would be routinely utilized on-site. Thus, as the presence and on-site storage of these materials are common for restaurant uses and would not be stored in substantial

quantities (quantities required to be reported to a regulatory agency), impacts in this regard are less than significant.

Limited amounts of some hazardous materials could be used in the short-term construction of the project, including standard construction materials (e.g., paints and solvents), vehicle fuel, and other hazardous materials. The routine transportation, use, and disposal of these materials would be required to adhere to State and local standards and regulations for handling, storage, and disposal of hazardous substances. With compliance with the existing State and local procedures that are intended to minimize potential health risks associated with their use or the accidental release of such substances, impacts associated with the handling, storage, and transport of these hazardous materials during construction would be less than significant.

Mitigation Measures: No mitigation measures are required.

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?

Less Than Significant Impact With Mitigation Incorporated. During project construction, there is a possibility of accidental release of hazardous substances such as petroleum-based fuels or hydraulic fluid used for construction equipment. The level of risk associated with the accidental release of hazardous substances is not considered significant due to the small volume and low concentration of hazardous materials utilized during construction. The construction contractor would be required to use standard construction controls and safety procedures that would avoid and minimize the potential for accidental release of such substances into the environment. Standard construction practices would be observed such that any materials released are appropriately contained and remediated as required by local, State, and Federal law. Construction of the project would involve approximately 1,200 cubic yards of cut and 250 cubic yards of fill with 950 cubic yards of export. Pursuant to existing Federal, State, and local laws and regulations, the applicant would be required to perform soil sampling of all export/import soils prior to transport in order to confirm no hazardous materials contamination is present. Should contamination be present above regulatory thresholds, use of those soils would be conducted in accordance with existing Federal, State, and local laws and regulations (Mitigation Measure HAZ-1). As such, impacts in this regard would be less than significant with mitigation incorporated.

Based on the Phase I ESA, no evidence of historic recognized environmental conditions was found in connection with the project site. Additionally, no recognized environmental conditions were identified for the project site. Based on the findings and conclusions of the Phase I, no existing hazardous contamination is anticipated to be present in the soil, soil gas, or groundwater at the project site.

An Asbestos and Lead Identification Survey was conducted to confirm whether or not asbestos-containing materials (ACMs) or lead based paints (LBPs) are present. The existing structure on the project site was constructed in the early 1960's and the interior was fully renovated in 2007. Samples of the building material were collected for possible ACMs. U.S. Environmental Protection Agency (EPA) regulations classify asbestos containing building materials as containing more than 1 percent asbestos. California Occupational Safety and Health Administration (OSHA) requires a certified asbestos consultant to conduct work when materials consist of 0.1 percent or more asbestos. Federal and State regulations require any disturbance of asbestos containing materials are property trained and have the required respiratory protection and medical surveillance. Based on the Asbestos and Lead Survey, ACMs were found in roofing areas,

heating, ventilation, and air conditioning (HVAC) Units, areas of patches and repairs, as well as other various areas. Thus, demolition of ACMs on-site could result in the accidental release of these materials. Mitigation Measure HAZ-2 requires a licensed asbestos technician to perform oversight over all abatement activities and to conduct a visual inspection to ensure the removal of asbestos prior to building demolition. With compliance with Mitigation Measure HAZ-2, potential demolition impacts of ACMs would be reduced to less than significant levels.

The Housing Urban Development (HUD) Guidelines, EPA and California Department of Public Health, regulate and require the abatement or in-place management of LBP hazards equal or greater than 1.0 milligram per square centimeter of lead by Portable X-Ray Fluorescent Analysis or more than 0.5 percent lead by weight by laboratory flame atomic absorption. Prior to the demolition work and/or transporting debris from the project site, Health and Safety Code 25157.8 (AB 2784 National Resources) requires that all lead debris be sampled for waste characterization. Based on the Asbestos and Lead Survey, two lead samples from Multi-Colored Paint surfaces were found to contain lead containing materials at levels above the limit of detection in the exterior window trim and exterior wood sliding, rafter tails, and overhangs. Thus, demolition of LBPs on-site could result in the accidental release of these materials. Mitigation Measure HAZ-3 would require a lead certified professional to conduct in-place management work of lead-based materials surfaces reported above the Occupational Safety and Health Administration (OSHA) Limit of Detection, scheduled for demolition, and ensure proper preparation, abatement, and disposal. Thus, with compliance with Mitigation Measure HAZ-3, potential demolition impacts of LBPs would be reduced to less than significant levels.

Operational activities would include typical restaurant practices. Minor cleaning products along with the occasional use of pesticides and herbicides for landscape maintenance of the project are generally the extent of hazardous materials that would be routinely utilized on-site. There is limited potential for activities of this nature to cause a significant hazardous materials release. Thus, impacts in this regard would be less than significant.

In conclusion, it is unlikely that the project would accidentally release hazardous materials into the environment during construction and operation activities. Further, after compliance with Mitigation Measures HAZ-1 through HAZ-3, construction-related impacts involving potential hazardous materials would be reduced to less than significant levels.

Mitigation Measures:

HAZ-1 Prior to the issuance of a grading permit, the applicant shall provide written evidence to the Community Development Department that the applicant has retained a qualified Phase II/Site Characterization Specialist to perform soil sampling of all export and import soils to confirm no hazardous materials contamination is present. Should contamination be present above regulatory thresholds, use of those soils shall be conducted in accordance with existing Federal, State, and local laws and regulations.

HAZ-2 Grading plans, approved by the City Engineer, shall indicate that prior to and during structure demolition, a licensed asbestos technician shall perform abatement planning, monitoring, oversight, and reporting. Visual inspection clearance shall be completed by the licensed asbestos technician prior demolition to ensure asbestos materials have been removed from the structure.

HAZ-3 Grading plans, approved by the City Engineer, shall indicate that prior to, and during structure demolition, a lead certified professional shall conduct in-place management

work of lead based materials surfaces reported above the Occupational Safety and Health Administration (OSHA) Limit of Detection and are scheduled for demolition, and ensure proper preparation, abatement, and disposal.

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

Less Than Significant Impact With Mitigation Incorporated. The nearest school to the project site is the Portola Middle School (located at 270 North Palm Drive, approximately 0.25 mile north of the project site). As noted above in Response 4.8(a), the types of materials that could be utilized during operation of the restaurant are expected to include cleaning and maintenance products, pesticides and herbicides, paints, and solvents and degreasers. It is not anticipated that the restaurant use would involve the disposal of hazardous materials in reportable quantities. Further, as discussed above in Response 4.8(b), all handling of building demolition materials would be conducted pursuant to existing Federal, State, and local laws and regulations, enforce through Mitigation Measures HAZ-1 through HAZ-3. With incorporation of mitigation measures, a less than significant impact would occur in this regard.

Mitigation Measures: Refer to Mitigation Measures HAZ-1 through HAZ-3.

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?

No Impact. Government Code Section 65962.5 requires the Department of Toxic Substances Control (DTSC) and State Water Resources Control Board (SWRCB) to compile and update a regulatory sites listing (per the criteria of the Section). The California Department of Health Services is also required to compile and update, as appropriate, a list of all public drinking water wells that contain detectable levels of organic contaminants and that are subject to water analysis pursuant to Section 116395 of the Health and Safety Code. Section 65962.5 requires the local enforcement agency, as designated pursuant to Section 18051 of Title 14 of the California Code of Regulations (CCR), to compile, as appropriate, a list of all solid waste disposal facilities from which there is a known migration of hazardous waste.

Based on the Phase I ESA, the site is not on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, therefore, would not create a significant hazard to the public or the environment. Thus, no impact would result in this regard.

Mitigation Measures: No mitigation measures are required.

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

No Impact. The project is not located within an airport land use plan and there are no public or private airports or airstrips within two miles of the project site. The nearest airport to the project site is John Wayne Airport/Orange County Airport, located at 3160 Airway Avenue, Costa Mesa, CA 92626, approximately seven miles to the south of the project site. Therefore, no impact would occur in this regard.

Mitigation Measures: No mitigation measures are required.

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

No Impact. Refer to Response 4.8(e).

Mitigation Measures: No mitigation measures are required.

g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Less Than Significant Impact. The project would not physically interfere with an adopted emergency response plan or emergency evacuation plan. Project construction activities could result in short-term temporary impacts to street traffic along West Almond Avenue and South Main Street. While temporary lane closures may be required, travel along surrounding roadways would remain open and would not interfere with emergency access in the site vicinity. Additionally, the General Plan does not identify West Almond Avenue or South Main Street as Evacuation Corridors. According to the General Plan, the City maintains an emergency preparedness and emergency response procedures plan (*City of Orange Emergency Operations Plan* [Emergency Operations Plan]) in accordance with the State Office of Emergency Services guidelines for multi-hazard functional planning. The Emergency Operations Plan consists of: 1) a basic plan; 2) annexes which address specific functions and duties of response agencies; and 3) a directory of emergency response resources. The plan indicates the City of Orange Fire Department provides emergency medical and fire protection support, and the City of Orange Police Department is responsible for coordinating law enforcement and communications operations. Other City departments are referenced as supporting agencies or organizations. The project would not affect the existing emergency service operations. As such, impacts in this regard would be less than significant.

Mitigation Measures: No mitigation measures are required.

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?

No Impact. The project site is located within a completely urbanized area that is void of any wildland areas. Further, according to the California Department of Forestry and Fire Protection, the project site is not located within the vicinity of a "Very High Fire Hazard Severity Zone."[1] Thus, no impact would occur in this regard.

Mitigation Measures: No mitigation measures are required.

1 California Department of Forestry and Fire Protection, *Fire hazard Severity Zones in SRA*, adopted on October 2011, http://www.fire.ca.gov/fire_prevention/fire_prevention_wildland_zones_maps.php, accessed May 21, 2018.

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4.9 HYDROLOGY AND WATER QUALITY

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Violate any water quality standards or waste discharge requirements?			✓	
b. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?			✓	
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of stream or river, in a manner, which would result in substantial erosion or siltation on- or off-site?			✓	
d. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner, which would result in flooding on- or off-site?			✓	
e. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?			✓	
f. Otherwise substantially degrade water quality?			✓	
g. Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?				✓
h. Place within a 100-year flood hazard area structures, which would impede or redirect flood flows?				✓
i. Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?			✓	
j. Inundation by seiche, tsunami, or mudflow?				✓
k. Potentially impact stormwater runoff from construction activities?			✓	
l. Potentially impact stormwater runoff from post-construction activities?			✓	
m. Result in a potential for discharge of stormwater pollutants from areas of material storage, vehicle or equipment fueling, vehicle or equipment maintenance (including washing), waste handling, hazardous materials handling or storage, delivery areas, loading docks or other outdoor work areas?			✓	
n. Result in the potential for discharge of stormwater to affect the beneficial uses of the receiving waters?			✓	

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
o. Create the potential for significant changes in the flow velocity or volume of stormwater runoff to cause environmental harm?			✓	
p. Create significant increases in erosion of the project site or surrounding areas?			✓	

This section is based on the following hydrology and water quality documentation, provided by the Applicant (refer to Appendix 8.5, *Hydrology and Water Quality Reports*):

- Joseph C. Truxaw & Associates, Inc., *Drainage Study* (Drainage Study), June 26, 2018; and
- Joseph C. Truxaw & Associates, Inc., *Preliminary Priority Water Quality Management Plan* (WQMP), March 18, 2019.

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

Less Than Significant Impact. As part of Section 402 of the Clean Water Act, the U.S. Environmental Protection Agency (EPA) has established regulations under the National Pollutant Discharge Elimination System (NPDES) program to control direct storm water discharges. In California, the State Water Resources Control Board (SWRCB) administers the NPDES permitting program and is responsible for developing NPDES permitting requirements. The NPDES program regulates industrial pollutant discharges, which include construction activities. The SWRCB works in coordination with the Regional Water Quality Control Boards (RWQCB) to preserve, protect, enhance, and restore water quality. The City of Orange is within the jurisdiction of the Santa Ana RWQCB.

SHORT-TERM CONSTRUCTION

The proposed project may result in water quality impacts during short-term construction activities. The grading/excavation required for project implementation would result in exposed soils that may be subject to wind and water erosion. Since the project impact area (approximately 0.95-acre) would be less than one acre in size, the proposed project would not be subject to the requirements of the Construction General Permit under the NPDES program. Short-term construction impacts would be minimal, as grading activities consist of 1,200 cubic yards of cut and 250 cubic yards of fill with 950 cubic yards of export.

Construction activities would also be required to comply with Chapter 7.01, *Water Quality and Stormwater Discharges*, of the *City of Orange Municipal Code* (Municipal Code). This chapter includes conditions and requirements established by the City related to the control of urban pollutants to stormwater runoff. Construction activities would be required to comply with water quality best management practices (BMPs) in accordance with the requirements of the City of Orange's Tract # 3086, Lot 27, Site Development Permit # 0904-17 and APN 390-264-28, included in Appendix 8.5. Upon adherence to the project's Erosion and Sediment Control Plans and Grading Plans and existing laws and regulations, impacts in this regard would be less than significant.

LONG-TERM OPERATIONS

The project would be regulated under the NPDES Phase I Municipal Stormwater Permits issued by the Santa Ana RWQCB for Orange County (Order No. R8-2009-0030 and NPDES Permit No. CAS618030, as amended by Order No. R8-2010-0062).[1] Since 1990, operators of MS4s are required to develop a stormwater management program designed to prevent harmful pollutants from impacting water resources via stormwater runoff. The Orange County Stormwater Program (Stormwater Program) is a cooperative of the County of Orange, Orange County Flood Control District (OCFCD), and all 34 Orange County cities. As the Principal Permittee on the Santa Ana RWQCB NPDES permits, the County guides development and implementation of the Stormwater Program, collaborating regularly with co-permittees to ensure compliance and prevent ocean pollution.

The Stormwater Program's specific water pollutant control elements are documented in the Drainage Area Management Plan (DAMP). The DAMP satisfies the NPDES permit conditions to reduce pollutant discharges to the maximum extent practicable for the protection of water quality at receiving water bodies and the support of designated beneficial uses. The DAMP contains guidance on both structural and nonstructural BMPs for meeting these goals. With implementation of the DAMP requirements, as required by Municipal Code Chapter 7.01, *Water Quality and Stormwater Discharge*, the project would be required to prepare a WQMP in accordance with the requirements of the NPDES standards.

The Applicant has prepared a preliminary WQMP, which includes non-structural BMPs, such as education materials for property owners, tenants, and occupants; activity restrictions; common area landscape management; BMP maintenance; underground (infiltration) storage tank compliance; common area litter control; employee training; common area catch basin inspection; and street sweeping private streets and parking lots. Structural BMPs included in the project's WQMP include providing storm drain system stenciling and drainage; designing and constructing trash and waste storage areas; and using efficient irrigation systems and landscaping designs.

The proposed project would involve installing an underground infiltration system sized and designed to capture stormwater flow in underground storage tanks on-site. The underground storage tanks have a total design capture volume of 2,122.4 cubic feet. Stormwater flows into the underground infiltration system would first be filtered of trash, debris, sediments, and hydrocarbons by grate inlet insets and a debris separator installed upstream. For overflows that exceed the design capacity of the underground storage tanks, a bypass system would be installed that would outlet to an existing 12-inch storm drain at the southwest portion of the project site, which would then flow off-site onto the property to the south (similar to existing conditions) via a 12-inch storm drain, and ultimately into the City's storm drain system via an existing catch basin.

Following compliance with the requirements of the NPDES permit (including finalization of the WQMP for the project), the DAMP, and Orange Municipal Code, project implementation would not violate any water quality standards or waste discharge requirements associated with long-term operations. Impacts in this regard would be less than significant.

1 California Regional Water Quality Control Board Santa Ana Region, Waste Discharge Requirements for the County of Orange, Orange County Flood Control District and the Incorporated Cities of Orange County within the Santa Ana Region Areawide Urban Storm Water Runoff Orange County, May 22, 2009, https://www.waterboards.ca.gov/santaana/board_decisions/adopted_orders/orders/2009/09_030_OC_MS4_as_amended_by_10_062.pdf, accessed May 21, 2018.

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

Less Than Significant Impact. The project would not substantially deplete groundwater supplies or interfere with groundwater recharge. As discussed in the project's Geotechnical Investigation, groundwater was not encountered during subsurface investigations to the maximum depth explored (16.5 feet); refer to Appendix 8.3, *Geotechnical Investigation*. As discussed in further detail in Response 4.18(d), implementation of the project would not create a substantial demand on groundwater sources and would not significantly change the amount of groundwater available and pumped from local wells. The 0.95-acre site is currently developed with a former commercial restaurant structure and surface parking lot. Due to the developed nature of the site, the project site does not have the capacity to serve as a significant source for groundwater recharge. The project does not involve the direct withdrawal of groundwater for municipal use and would not substantially interfere with recharge capabilities. Thus, the redevelopment of the site to a proposed drive-thru restaurant would not substantially deplete groundwater supplies or interfere with groundwater recharge. Impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

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

Less Than Significant Impact. Soil disturbance would temporarily occur during project construction due to earth-moving activities such as excavation and trenching for foundations and utilities, soil compaction and moving, and grading. Disturbed soils would be susceptible to high rates of erosion from wind and rain, resulting in sediment transport via stormwater runoff from the project site.

The project would be subject to compliance with the BMPs identified in the project's Erosion and Sediment Control Plans and Grading Plans as well as the requirements set forth in Municipal Code Chapter 7.01, *Water Quality and Stormwater Discharges*; refer to Response 4.9(a). Compliance with the Municipal Code, would reduce the volume of sediment-laden runoff discharging from the site. Therefore, project implementation would not result in a substantial increase in erosion or siltation on- or off-site during construction. Further, no existing channels are located within proximity to the project site. The nearest channel, the Bitterbush Channel, is located approximately 0.6-mile to the northwest of the project site.[2]

Given the nature of proposed use and the urbanized project setting, long-term operation of the project would not have the potential to result in substantial erosion or siltation off-site. The project would not include large areas of exposed soils that would be subject to runoff; rather, any unpaved areas would be improved with groundcover and landscaping to minimize the potential for erosion/siltation. In addition, as stated within Response 4.9(a), the project would also be subject to existing requirements of the NPDES permit (including approval of the project's WQMP), DAMP, and Municipal Code Chapter 7.01. Thus, impacts in this regard would be less than significant.

2 City of Orange, Storm Water Local Implementation Plan (LIP), *High Threat Residential Areas*, July 2011.

Mitigation Measures: No mitigation measures are required.

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

Less Than Significant Impact. The project site is generally flat and is located within an urbanized area. Existing on-site runoff sheet flows from the north and east to an opening in the existing block wall at the southwest corner of the site. Under existing conditions, this opening is undersized and causes water ponding on-site. The runoff is collected in a grated inlet on the property adjacent to the south and then flows south to an existing storm drain in Palmyra Avenue, which is conveyed to the Orange County storm drain system that discharges runoff to the Santa Ana River.

The project would construct a drive-thru restaurant and surface parking lot in place of a closed commercial restaurant and associated parking lot on-site. Currently, the project site is almost entirely paved (approximately 99.1 percent impervious) with a few planter areas. Development of the project would result in a decrease in impervious areas from 99.1 percent to 86.0 percent, a 13.1 percent reduction due to increased pervious landscaping areas. Stormwater flow would flow toward three 24- by 24-inch grated inlets on-site that would flow into an underground infiltration system. Stormwater flows would be filtered of debris and trash on-site. Infiltration chambers would be sized and designed to capture the required storm capture volume (the first 0.8 inches of rainfall for all storm events). The infiltration chambers would infiltrate the receiving runoff within 48 hours. For overflows, a bypass system would be installed that would outlet from the lowest grated inlet onsite into a proposed concrete channel and through the existing wall opening where it will be intercepted into the existing storm drain system. Curb and gutter improvements are also proposed off-site along the eastern portion of the project site along South Main Street.

On-site runoff (the first 0.8 inches of rainfall for all storm events) would be collected in the proposed underground infiltration system. Based on the Drainage Study, this system would have adequate capacity and would not result in flooding on- or off-site. As existing surface water flows currently result in ponding at the southwest corner of the site, this ponding condition would be alleviated with implementation of the proposed underground infiltration system.

As discussed above, during larger storm events, the proposed overflow (or bypass system) would transport flows from the underground infiltration system to a proposed concrete channel within the site and through the existing wall opening and into the existing storm drain system. Ultimately, runoff during these larger storm events would be similar to that experienced under the site's existing condition. Thus, the proposed changes to the existing drainage pattern would improve drainage flows and impacts pertaining to flooding conditions on- and off-site would be less than significant.

Mitigation Measures: No mitigation measures are required.

e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

Less Than Significant Impact. Refer to Response 4.9(d).

Mitigation Measures: No mitigation measures are required.

f) Otherwise substantially degrade water quality?

Less Than Significant Impact. The proposed project involves developing a drive-thru restaurant which would not otherwise substantially degrade water quality; refer to Response 4.9(a). Compliance with the NPDES permit (including finalization of the WQMP for the project), the DAMP, and Orange Municipal Code would ensure impacts in this regard would be less than significant.

Mitigation Measures: No mitigation measures are required.

g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?

No Impact. According to the Flood Insurance Rate Map (FIRM) for the project area, the project site is located outside of the 100-year flood hazard area.[3] In addition, no housing would be constructed as part of the proposed project. As such, no impact would result in this regard.

Mitigation Measures: No mitigation measures are required.

h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows.

No Impact. As noted in Response 4.9(g), the project site is not located within a 100-year flood hazard area. No impact would result in this regard.

Mitigation Measures: No mitigation measures are required.

i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?

Less Than Significant Impact. According to the *City of Orange General Plan Program Environmental Impact Report* (General Plan PEIR), the nearest dams are the Villa Park Dam and Santiago Dam located along Santiago Creek in the foothills of East Orange approximately 6.2 miles northeast and 8.2 miles east of the project site, respectively. Water from the Villa Park Dam and Santiago Dam flows along the Santiago Creek, which is located approximately one miles to the south of the project site, and discharges into the Santa Ana River southwest of the project site. Given the distance and direction of flow away from the project site, potential flooding on-site as a result of dam failure would not occur. Further, the project would construct one drive-thru restaurant, and as such, would not expose a substantial number of people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam. Therefore, impacts in this regard would be less than significant.

Mitigation Measures: No mitigation measures are required.

j) Inundation by seiche, tsunami, or mudflow?

No Impact. A seiche is an oscillation of a body of water in an enclosed or semi-enclosed basin, such as a reservoir, harbor, lake, or storage tank. A tsunami is a great sea wave, commonly referred to as a tidal wave, produced by a significant undersea disturbance such as tectonic

3 Federal Emergency Management Agency, *Flood Insurance Rate Map #06059C0161J*, Map Revised December 3, 2009, https://msc.fema.gov/portal/search#searchresultsanchor, accessed May 21, 2018.

displacement of a sea floor associated with large, shallow earthquakes. Mudflows result from the downslope movement of soil and/or rock under the influence of gravity.

As stated in Response 4.9(i), the project site is located approximately 6.2 miles southwest of the Villa Park Dam and approximately 8.2 miles west of the Santiago Dam. The Santiago Creek Recharge Basin is located downstream of the Villa Park Dam and Irvine Lake is adjacent to the Santiago Dam. According to the General Plan PEIR, seiches have not historically occurred in the City and no local mapping is available for areas adjacent to these water bodies that might be affected by a seiche. However, as previously stated, water from these dams and lakes flows downstream of Santiago Creek towards the Santa Ana River approximately 1.65 miles southwest of the project site. Given the distance and direction of flow associated with potential seiches, potential flooding on-site as a result of inundation by seiche would likely not occur. Additionally, the project site is located more than 10 miles from the Pacific Ocean and is a sufficient distance so as not to be subject to tsunami impacts. Further, there are no sources of potential mudflow capable of inundating the project site due to the developed nature of the area and the relatively flat topography of the vicinity. Therefore, no impacts would occur in this regard.

Mitigation Measures: No mitigation measures are required.

k) Potentially impact stormwater runoff from construction activities?

Less Than Significant Impact. Since the project impact area (approximately 0.95-acre) would be less than one acre in size, the proposed project would not be subject to the requirements of the Construction General Permit under the NPDES program. Short-term construction impacts would be minimal, as grading activities consist of approximately 1,200 cubic yards of cut and 250 cubic yards of fill with 950 cubic yards of export. As discussed in Response 4.9(a), construction activities would be required to comply with water quality BMPs in the Erosion and Sediment Control Plans and Grading Plans, and Orange Municipal Code Chapter 7.01. This chapter includes conditions and requirements established by the City related to the control of urban pollutants to stormwater runoff. Upon compliance with existing laws and regulations, impacts to stormwater runoff from construction activities would be less than significant.

Mitigation Measures: No mitigation measures are required.

l) Potentially impact stormwater runoff from post-construction activities?

Less Than Significant Impact. Operation of the project has the potential to introduce pollutants to the storm drain system from the on-site restaurant use. However, BMPs that target pollutants of concern would be implemented and maintained to capture and treat stormwater runoff, as required by the project's WQMP. Specifically, the WQMP requires the following non-structural BMPs: education materials for property owners, tenants, and occupants; activity restrictions; common area landscape management; BMP maintenance; underground (infiltration) storage tank compliance; common area litter control; employee training; common area catch basin inspection; and street sweeping private streets and parking lots. Structural BMPs required by the WQMP include storm drain system stenciling and signage stating, 'No Dumping – Drains to Ocean;' design and construction of trash and waste storage areas to reduce pollution introduction; and use of efficient irrigation systems and landscape designs. Additionally, proposed low impact development (LID) BMPs would include roof downspouts, grated inlets, subsurface infiltration galleries, a debris and trash separator unit, and an underground infiltration system.

Further, compliance with the requirements of the NPDES permit (including finalization of the WQMP), DAMP, and Orange Municipal Code Chapter 7.01, would ensure operational activities associated with the project would not violate any water quality standards. Thus, impacts in this regard would be less than significant.

Mitigation Measures: No mitigation measures are required.

m) Result in a potential for discharge of stormwater pollutants from areas of material storage, vehicle or equipment fueling, vehicle or equipment maintenance (including washing), waste handling, hazardous materials handling or storage, delivery areas, loading docks or other outdoor work areas?

Less Than Significant Impact. The proposed project would involve constructing a Chick-fil-A drive-thru restaurant and associated surface parking lot. The project would not involve any material storage, vehicle or equipment fueling or maintenance (including washing), waste handling, hazardous materials handling or storage, delivery areas, loading docks or other outdoor work areas at project completion. While construction activities may involve such activities, as concluded in Response 4.9(a), construction activities would be regulated by the requirements of the NPDES permit (including finalization of the WQMP for the project), the DAMP, and Orange Municipal Code. Thus, stormwater pollutants generated on-site would result in less than significant impacts in this regard.

Mitigation Measures: No mitigation measures are required.

n) Result in the potential for discharge of stormwater to affect the beneficial uses of the receiving waters?

Less Than Significant Impact. Stormwater leaving the project site would flow towards the Santa Ana River – Reach 2 of the Santa Ana River Reach 1 Watershed. The Santa Ana River – Reach 2 provides the following beneficial uses[4]:

- Agricultural Supply (AGR);
- Groundwater Recharge (GWR);
- Water Contact Recreation (REC1);
- Non-Contact Water Recreation (REC2);
- Warm Freshwater Habitat (WARM);
- Wildlife Habitat (WILD); and
- Rare, Threatened, or Endangered Species (RARE).

4 California Regional Water Quality Control Board, Santa Ana Region, *Water Quality Control Plan for the Santa Ana River Basin (8)*, Table 3-1, January 24, 1995 (updated February 2016), https://www.waterboards.ca.gov/santaana/water_issues/programs/basin_plan/docs/2016/Chapter_3_Feb_2016.pdf, accessed May 21, 2018.

As discussed in Response 4.9(a), compliance with the requirements of the NPDES permit (including finalization of the WQMP), the DAMP, and Orange Municipal Code Chapter 7.01, impacts related to degradation of water quality would be reduced to a less than significant level.

Mitigation Measures: No mitigation measures are required.

o) Create the potential for significant changes in the flow velocity or volume of stormwater runoff to cause environmental harm?

Less Than Significant Impact. Refer to Responses 4.9(a) and 4.9(d).

Mitigation Measures: No mitigation measures are required.

p) Create significant increases in erosion of the project site or surrounding areas?

Less Than Significant Impact. Refer to Response 4.9(c).

Mitigation Measures: No mitigation measures are required.

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4.10 LAND USE AND PLANNING

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

a) Physically divide an established community?

No Impact. The project site currently consists of a vacant commercial restaurant structure and surface parking lot and is surrounded by medical office uses and multi- and single-family residential uses to the north and northwest; medical and professional office uses to the east; medical office uses to the south; and institutional (pre-school) and multi-family residential uses to the west. The project would demolish the existing building and construct a drive-thru restaurant and associated surface parking lot on-site. The project would not physically divide an established community; instead, it would replace the existing commercial structure on-site with another commercial use. As such, the project would be compatible with existing surrounding uses, which include commercial and residential uses, and no impacts would result in this regard.

Mitigation Measures: No mitigation measures are required.

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

Less Than Significant Impact.

GENERAL PLAN AND ZONING CONSISTENCY ANALYSIS

In 2010, in order to encourage the transition of the south Main Street Corridor to a medically-oriented district with opportunities for hospital-related workforce housing and to support property reinvestment, the City re-designated the site and surrounding properties from General Commercial (CG) to Neighborhood Mixed Use (NMIX), with corresponding zoning from General Business (C-2) to Neighborhood Mixed Use (NMU-24). The land use change was also intended to establish alignment between land use policy and the volume of pedestrian and transit activity as well as housing demand associated with employees and visitor to the nearby St. Joseph Hospital, Children's Hospital of Orange County, medical offices, and major bus lines traveling the South Main Street corridor. Additionally, the South Main Street corridor directly interfaces established neighborhoods. Therefore, the development standards of the NMU-24 zoning also considers neighborhood compatibility of new development on South Main Street. While the

zoning allows for drive-thru restaurants, based on the City's goal to establish a pedestrian-oriented environment given the transit and pedestrian activity on Main Street, the zoning establishes special design requirements for fast food restaurants in the NMU-24 zone. Additionally, the NMIX minimum floor to area ratio (FAR) is intended to support higher intensity development consistent with a neighborhood-oriented urban mixed-use district. Because the operational needs of the proposed Chick-fil-A are not in alignment with either the *City of Orange General Plan* (General Plan) or zoning requirements for the site, the project proposes to re-designate the parcel back to the pre-2010 land use (CG designation) and zoning (C-2 zone).

General Plan Land Use Designation

As stated above, the project site has a land use designation of NMIX with a maximum density of 24 dwelling units per acre for residential development and minimum 1.0 to maximum 1.5 floor to area ratio (FAR) for commercial development. As proposed, the project would not be consistent with the intent of the NMIX designation for mixed-use development and would not meet the minimum FAR of 1.0. The project proposes a General Plan Amendment to change the designation from NMIX to CG, which has a maximum 1.0 FAR. The proposed drive-thru restaurant would be consistent with the intent of the CG designation. Further, the proposed drive-thru restaurant would be approximately 4,563 square feet on a 0.95-acre site, which equates to a 0.11 FAR; thus, the project would comply with the proposed CG designation's maximum FAR limit. Upon approval of the proposed project and associated discretionary actions, including approval of the General Plan Amendment, the proposed project would be consistent with the site's new General Plan land use designation. Additionally, the project would replace a former restaurant with a new restaurant facility. Thus, the project would comply with the General Plan policies for CG designated areas.

General Plan Policies

The General Plan is the primary planning document that guides land uses in the City and contains goals and policies for development, which pertain to the project. Table 4.10-1, *General Plan Policy Consistency Analysis*, provides an analysis of the project's consistency with the relevant General Plan policies. As indicated in Table 4.10-1, the project would be consistent with relevant General Plan policies with the exception of Urban Design Element Policies 1.5 and 2.1, regarding street-oriented compact development. Since the project would be generally consistent with the General Plan policies, impacts would be less than significant in this regard.

Table 4.10-1
General Plan Policy Consistency Analysis

Policy #	Policy	Determination of Consistency
Land Use Element		
Goal 1: Meet the present and future needs of all residential and business sectors with a diverse and balanced mix of land uses.		
Policy 1.2	Balance economic gains from new development while preserving the character and densities of residential neighborhoods.	Consistent. The project site is developed with a vacant and deteriorated restaurant building and associated surface parking and is therefore not currently generating revenue or contributing towards the character of the project area. The project would replace a former restaurant with a new restaurant facility providing economic gains (e.g., sales tax revenue and employment opportunities) to the City from the proposed commercial development. Additionally, the deteriorated building would be replaced with a new restaurant and associated improvements that

Table 4.10-1, continued

Policy #	Policy	Determination of Consistency
		would enhance the visual character of the project area. The closest residential neighborhood is located to the northwest and west of the project site. Development of the project would not impact the character and densities of nearby residential neighborhoods as the project would replace a former restaurant building with a new restaurant building. The project would be of similar use and scale and is located near other non-residential developments, including medical office buildings, commercial/retail stores, and restaurants.
Policy 1.4	Ensure that new development reflects existing design standards, qualities, and features that are in context with nearby development.	Consistent. The project would be consistent with the developed nature of the area and would integrate into the existing visual character of the surrounding vicinity. A single-story preschool is located to the west and a two-story medical office building is located to the south, immediately adjacent to the site. Single-family residential uses and a three-story medical office building are located north of Almond Avenue. Single-story medical office uses are located east of Main Street. Auto repair uses are located to the northeast. The project would be a single-story restaurant similar to the former restaurant use and the site plan is designed similar to the adjacent preschool to the west and medical office buildings to the east with the proposed restaurant building set back from property lines by a surface parking lot. Additionally, the proposed building would be designed with various architectural building elements, including a brick veneer, dark bronze parapets, awnings and other metal storefront features, and "Powerwall White" stucco with a sand medium finish, along with restaurant identification signage; refer to Exhibits 2-5a and 2-5b, *Building Elevations*. Adjacent buildings in the project area include medical office buildings and single-family residences to the north, commercial buildings to the east, medical office buildings to the south, and a pre-school and multifamily residences to the west. The buildings range in height from one- to two-stories and the proposed building would be consistent with these adjacent buildings. The existing NMU-24 zone allows for drive-thru restaurants; however, based on the City's goal to establish a pedestrian-oriented environment given the transit and pedestrian activity on Main Street, the zoning establishes special design requirements for fast food restaurants in the NMU-24 zone. The project would be consistent with several of the special design requirements including, but not limited to, placing the drive thru lane away from circulation routes, parking areas and pedestrian walkways, and not adjacent to streets; width of the drive thru lanes; provision of a queueing analysis to demonstrate adequate site operations; providing adequate distance from the site driveway and drive thru entrance; providing adequate distance from the drive thru entrance and menu board; menu board and loud speaker operation; enhanced pedestrian walkways; and adequate safety. However, the operational needs of the proposed Chick-fil-A are not in complete alignment with either the General Plan or zoning requirements for the site including placement of the building toward the street and parking areas between the building and front property line. Additionally, the project would not be consistent with

Table 4.10-1, continued

Policy #	Policy	Determination of Consistency
		the minimum FAR. Therefore, the project is proposing a zone change from NMU-24 to C-2. The project's minimum FAR, maximum building height, minimum setbacks, signage, landscaping, and other development characteristics would comply with the development regulations detailed in Municipal Code Chapter 17.18, *Commercial Districts*, for C-2 zone, and would be consistent with the City of Orange zoning regulations for the C-2 zone and the Southwest Project Area Design Standards; refer to Tables 4.10-3 and 4.10-4. Generally, the project would be consistent with the NMU-24 zone with the exception of the minimum FAR requirement and several special design requirements related to street-oriented development; refer to Response to Urban Design Element Policies 1.5 and 2.1, below.
Policy 1.6	Minimize effects of new development on the privacy and character of surrounding neighborhoods.	Consistent. The nearest neighborhoods to the project site are single-family residences to the north across West Almond Avenue and multifamily residences to the west beyond the existing preschool (Little Scholars Academy of California). Given that the project site is not immediately adjacent to either residential neighborhood, project development would not have an effect on the privacy of surrounding neighborhoods. As detailed in Section 4.16, *Transportation/Traffic*, the on-site transportation circulation plan required under Mitigation Measure TRA-1 would prevent drive-thru queuing on-site by requiring Chick-fil-A team members to monitor potential queues and to go out to the drive-thru lanes to take orders with hand held ordering and payment devices to increase ordering efficiencies and reduce queue lengths. The drive-thru would provide stacking for up to 17 vehicles from the entry to the pick-up window with additional on-site overflow space as needed. Should the vehicle queue extend onto Almond Avenue, Mitigation Measure TRA-1 would ensure Chick-fil-A staff direct customers to utilize the Main Street access to enter the drive-thru lane, preventing vehicle queuing nearby the residents to the west. Further, as detailed in Section 4.12, *Noise*, the noise levels associated with the drive thru speakerphones would not adversely impact the privacy of nearby residences and would not exceed the City's 55 dBA noise standard for residential uses. It should be noted that noise from drive-thru operations on-site would also be largely masked by traffic noise along Almond Avenue and Main Street. Additionally, as stated above and detailed in Tables 4.10-3 and 4.10-4, the proposed project would integrate into the existing visual character of the surrounding vicinity and would comply with development regulations and design standards in Municipal Code Chapter 17.18 and the Southwest Project Area Design Standards.

Table 4.10-1, continued

Policy #	Policy	Determination of Consistency
Goal 2: Create successful, high quality mixed-use districts consisting of a mix of residential, commercial, office, civic, and common open space land uses, supported by alternative modes of transportation.		
Policy 2.4	Encourage mixed-use projects that contain a variety of compatible uses and provide necessary supporting public and community facilities.	Consistent. This policy encourages mixed-use projects that provide compatible uses and supporting facilities. Although encouraged, the project site, along with other sites designated NMIX, are not required to be developed with a mixed-use project. The project would not prohibit mixed-use development within the area or other portions of the City designated for mixed-use development. The project proposes a General Plan Amendment from NMIX to CG; if approved, policies pertaining to mixed-use development would no longer apply to the project site. Nevertheless, the project site is also located within the South Main Street Corridor area of the City, which has a primary focus on its medical hub associated with the Children's Hospital of Orange County and St. Joseph Hospital medical centers as well as commercial, office, and multi-family uses along Main Street. Development of a fast food restaurant on-site would provide a place for medical office employees and residents in the area to take a lunch break and is a compatible use within the South Main Street Corridor area.
Policy 2.5	Minimize traffic and parking impacts of proposed mixed-use projects.	Inconsistent. This policy specifically addresses traffic and parking impacts of mixed-use projects developed in the City. The proposed project is not a mixed-use development but is currently on a mixed-use designated site. Therefore, the project would be inconsistent with this policy based on the site's existing land use designation. Not Applicable. The project proposes a General Plan Amendment to amend the site's land use designation from NMIX to CG. Therefore, upon adoption of the General Plan Amendment, this policy would not be applicable to the proposed project and the project would not be inconsistent with Land Use Policy 2.5.
Policy 2.6	Encourage linkage in and around mixed-use areas using a multi-modal circulation network, particularly transit, pedestrian sidewalks, paths and paseos, and bicycle and trail systems.	Consistent. Although the project proposes a General Plan Amendment to change the designation for the site from NMIX to CG, the project site would remain within an area identified for mixed-use development by the General Plan. Bus Stops 5502 and 5523 for the Orange County Transportation Authority (OCTA) are located less than 0.05-mile from the project site. The existing OCTA bus stop would be relocated approximately 100 feet to the south; similar signage and bench would be installed consistent with OCTA requirements. Additionally, based on the available transit opportunities within the project area, project implementation is not anticipated to interfere with access to any bus routes nor would it result in a significant increase in transit trip volumes. The project would also be subject to the City's site access and circulation requirements identified in Municipal Code Title 12, *Streets, Sidewalks and Public Places*. The project would provide bicycle parking for patrons and striped pathways from Main Street and Almond Avenue to the Chick-fil-A restaurant would be constructed to allow for pedestrian connectivity along both adjacent roadways. There are currently no designated bicycle lanes adjacent to the project site. General Plan Figure CM-3 identifies Almond Avenue as a future Class III (On-Street) bicycle facility. The project would

Table 4.10-1, continued

Policy #	Policy	Determination of Consistency
		not significantly alter the location of the existing driveways entering/exiting the site; nor would it increase the number of driveways that occur. The project would not interfere with the ability to provide a future Class III bicycle facility on Almond Avenue. Sidewalks are currently available adjacent to the project site and would not be altered as a result of the project. Perimeter site landscaping including shrubs and trees would improve the pedestrian experience adjacent to the project site.
Policy 2.7	Ensure that the architecture, landscape design, and site planning of mixed-use projects are of the highest quality, and that they emphasize a pedestrian orientation and safe, convenient access between uses.	Inconsistent. This policy specifically addresses development and design of mixed-use projects in the City. The project is not a mixed-use development but is currently on a mixed-use designated site. Therefore, the project would be inconsistent with this policy based on the site's existing land use designation. Not Applicable. The project proposes a General Plan Amendment to amend the site's land use designation from NMIX to CG. Therefore, upon adoption of the General Plan Amendment, this policy would not be applicable to the proposed project and the project would not be inconsistent with Land Use Policy 2.7.
Policy 2.8	Ensure that adequate gathering areas or plazas are incorporated within mixed-use projects and areas to allow for social interaction and community activities.	Inconsistent. This policy specifically addresses incorporation of gathering areas or plazas into mixed-use projects developed in the City. The project is not a mixed-use development but is currently on a mixed-use designated site. Therefore, the project would be inconsistent with this policy based on the site's existing land use designation. Not Applicable. The project proposes a General Plan Amendment to amend the site's land use designation from NMIX to CG. Therefore, upon adoption of the General Plan Amendment, this policy would not be applicable to the proposed project and the project would not be inconsistent with Land Use Policy 2.8.
Policy 2.9	Encourage mixed-use development to include ground floor retail.	Inconsistent. This policy specifically encourages mixed-use development to include ground floor retail. The project is not a mixed-use development but is currently on a mixed-use designated site. Therefore, the project would be inconsistent with this policy based on the site's existing land use designation. Not Applicable. The project proposes a General Plan Amendment to amend the site's land use designation from NMIX to CG. Therefore, upon adoption of the General Plan Amendment, this policy would not be applicable to the proposed project and the project would not be inconsistent with Land Use Policy 2.9.
Goal 3: Create commercial uses that provide a solid economic base and employment opportunities and identify Orange as an attractive and diverse shopping destination.		
Policy 3.1	Promote development of revenue-generating land uses that help defray the costs of high quality public services.	Consistent. The existing use on the project site is a former restaurant. Project development would replace the vacant building with a Chick-fil-A restaurant that would generate revenue for the City and contribute towards defraying the City's costs for public services.

Table 4.10-1, continued

Policy #	Policy	Determination of Consistency
Policy 3.2	Actively promote the City as a place to shop and conduct business, and encourage local patronage of Orange businesses.	Consistent. The site is located within an area of the City that includes local- and neighborhood-supporting mixed-use activity centers and corridors. Residential, a preschool, and medical office uses are located within the immediate vicinity of the site. The proposed fast food facility would be easily accessible to residents and employees within the area and would likely be patronized by both locals and visitors of Orange.
Policy 3.3	Improve vehicular, pedestrian, and visual connections between commercial areas and the rest of the community.	Consistent. The project would be subject to the City's site access and circulation requirements identified in Municipal Code Title 12, *Streets, Sidewalks and Public Places*. The project would also provide bicycle parking for patrons and striped pathways from Main Street and Almond Avenue to the Chick-fil-A restaurant to allow for pedestrian connectivity along both adjacent roadways and commercial and residential uses. Sidewalks are currently available adjacent to the project site and would not be altered as a result of the project. Perimeter site landscaping including shrubs and trees would improve the pedestrian experience adjacent to the project site. The project would also include a landmark feature as a large planter at the northeast corner of the site with 'City of Orange' lettering to promote community identity and provide a streetscape enhancement at the Main Street and Almond Avenue intersection. The project would provide 48 vehicle parking spaces (46 standard spaces [including one electric vehicle space] and two handicap spaces), motorcycle parking, and parking storage for up to 12 bicycles at the front of the building for convenience and safety. The restaurant would include two 12-foot drive-thru lanes (that merge into one 12-foot lane) with directional signage located at the northwestern portion of the project site. The proposed drive-thru lane would wrap around the western and southern sides of the proposed building, and vehicles would exit the drive-thru lane at the southeast corner of the building. The drive-thru would provide stacking for up to 17 vehicles from the entry to the pick-up window with additional overflow storage for up to 20 cars on-site During peak operating times, should queuing occur beyond the available storage within the drive-thru lanes (17 vehicles), staff would go out to the drive-thru lanes to assist with ordering via Chick-fil-A's iPad ordering system. Based on data from Chick-fil-A's other comparable stores, the iPad ordering system increases the drive-thru speed of service by 30 percent than the typical speaker box. It is acknowledged that the iPad ordering system is always used during peak hours of 11:30 am to 1:30 pm and any additional time when needed. Additionally, should the vehicle queue extend onto Almond Avenue, Mitigation Measure TRA-1 would ensure Chick-fil-A staff direct customers to utilize the Main Street access to enter the drive-thru lane. Chick-fil-A management would also direct staff to park in the stalls closest to the drive-thru entrance along Almond Avenue. This would allow stacking, if needed. The east-west on-site drive aisle along the restaurant frontage is not considered a fire lane, so queuing within the drive aisle is acceptable.

Table 4.10-1, continued

Policy #	Policy	Determination of Consistency
Policy 3.4	Discourage commercial and industrial enterprises that have significant adverse soil, air, water, or noise impacts.	Consistent. As detailed in Sections 4.6, *Geology and Soils*, and 4.18, *Utilities and Service Systems*, the proposed commercial development would have less than significant impacts on soils and water supply/demand, respectively. Additionally, Sections 4.3, *Air Quality*, and 4.12, conclude that the project would have less than significant impacts with mitigation incorporated.
Goal 6: Advance development activity that is mutually beneficial to both the environment and the community.		
Policy 6.1	Ensure that new development is compatible with the style and design of established structures and the surrounding environment.	Consistent. Refer to Land Use Element Policy 1.4.
Policy 6.3	Establish and maintain greenways, and pedestrian and bicycle connections that complement the residential, commercial and open space areas they connect.	Consistent. The project would provide two striped pedestrian pathways from Main Street and Almond Avenue to the Chick-fil-A restaurant to allow for pedestrian connectivity along both adjacent roadways and surrounding commercial and residential uses. Parking storage for 12 bicycles would also be provided in front of the restaurant building. Landscaping and trees would be provided along the project perimeter. Compared to existing conditions, the proposed landscape and streetscape improvements would provide a greenway connection to the residential neighborhoods to the west; refer to Exhibit 2-4, *Landscape Concept Plan*. In an effort to improve the street presence of the project, the project would also include a landmark feature as a large planter at the northeast corner of the site with 'City of Orange' lettering to promote community identity and provide a streetscape enhancement at the Main Street and Almond Avenue intersection.
Policy 6.5	Reduce pollutant runoff from new development and urban runoff to the maximum extent practicable.	Consistent. At project completion, stormwater flow on-site would flow toward three grated inlets on-site that would flow into an underground infiltration system. For overflows, a bypass system would be installed that would outlet to an existing storm drain at the southwest portion of the project site, which would then flow off-site into the City's storm drain system via an existing catch basin. Based on the project's Drainage Study, the underground filtration system would have adequate capacity to treat stormwater flow. As existing surface water flows currently result in ponding at the southwest corner of the site, this ponding condition would be alleviated with implementation of the proposed underground infiltration system. Additionally, the project's Water Quality Management Plan includes structural and non-structural best management practices (BMPs) for both construction and operational activities. Implementation of these BMPs would ensure water quality standards are met and pollutant runoff is minimized.
Policy 6.6	Enhance the walkability of both new and current development.	Consistent. The project would provide bicycle parking for patrons and striped pathways from Main Street and Almond Avenue to the Chick-fil-A restaurant to allow for bicyclist and pedestrian connectivity from both adjacent roadways and surrounding commercial and residential uses. Sidewalks are currently available adjacent to the project site and would not be altered as a result of the project. Although the restaurant building would not be located immediately adjacent to the street frontage due to operation

Table 4.10-1, continued

Policy #	Policy	Determination of Consistency
		requirements, perimeter site landscaping including shrubs and trees would improve the pedestrian experience adjacent to the project site. The project would also include a landmark feature as a large planter at the northeast corner of the site with 'City of Orange' lettering to promote community identity and provide a streetscape enhancement at the Main Street and Almond Avenue intersection.
Policy 6.8	Maximize landscaping along streetscapes and within development projects to enhance public health and environmental benefits.	Consistent. Trees and shrubs would be planted along Almond Avenue and Main Street and along the western and southern perimeters adjacent to the existing concrete masonry unit walls. Landscaping would also be provided within the parking areas, on berms, and surrounding the proposed restaurant structure. In an effort to improve the project's street presence, the project would also include a landmark feature as a large planter at the northeast corner of the site with 'City of Orange' lettering to promote community identity and provide a streetscape enhancement at the Main Street and Almond Avenue intersection.
Policy 6.9	Restrict development in areas where exposure to hazards such as flood, erosion, liquefaction, dam failure, hazardous materials, and toxic gases cannot be mitigated to reduce risk to residents and liability to the City.	Consistent. As detailed in Section 4.7, *Geology and Soils*, and Section 4.8, *Hazards and Hazardous Materials*, the project site would not be at substantial risk of flood, erosion, liquefaction, dam failure, hazardous materials, or toxic gases.
Policy 6.10	Mitigate adverse air, noise, circulation, and other environmental impacts caused by new development adjacent to existing neighborhoods through use of sound walls, landscaping buffers, speed limits, and other traffic control measures.	Consistent. As analyzed in Section 4.3 and 4.12, air quality and noise impacts associated with the project would be mitigated to less than significant levels. Additionally, Section 4.16, concludes that the project would have less than significant impacts to traffic and circulation. Specifically, should the vehicle queue extend onto Almond Avenue, Mitigation Measure TRA-1 would ensure Chick-fil-A staff direct customers to utilize the Main Street access to enter the drive-thru lane. Chick-fil-A management would also direct staff to park in the stalls closest to the drive-thru entrance along Almond Avenue. This would allow stacking, if needed. Further, localized air quality emissions associated with idling vehicles in the drive thru lanes in close proximity to sensitive receptors (i.e., adjacent preschool and residential uses) was also analyzed in Section 4.3. As detailed in Section 4.16, the proposed restaurant would result in a low volume of peak hour trips, and thus, it can be expected that there would not be a large number of vehicles idling in the drive thru lanes at any one time. Therefore, idling vehicles would not have the potential to generate a significant carbon monoxide hotspot that could affect nearby sensitive receptors. Impacts would be less than significant in this regard.
Goal 8: Encourage active involvement of residents, businesses, and agencies in the planning and decision making process.		
Policy 8.1	Continue to provide opportunities for public education and involvement in land use planning decisions through public hearings, community meetings, study sessions, electronic media, and any other appropriate and available means.	Consistent. The proposed project is subject to the guidelines and regulations of the California Environmental Quality Act (CEQA) and the City of Orange, including public hearing and noticing requirements to provide the public opportunities for involvement in land use planning decisions.

Table 4.10-1, continued

Policy #	Policy	Determination of Consistency
Circulation & Mobility Element		
Goal 1: Provide a safe, efficient, and comprehensive circulation system that serves local needs, meets forecasted demands, and sustains quality of life in neighborhoods.		
Policy 1.1	Plan, build, and maintain an integrated, hierarchical, and multi-modal system of roadways, pedestrian walkways, and bicycle paths throughout the City.	Consistent. As a proposed fast food facility, the potential for the project to plan, build, and/or maintain an integrated multi-modal circulation system is limited. However, the project does propose two striped pedestrian pathways connecting Main Street and Almond Avenue to the Chick-fil-A restaurant building as well as parking storage for 12 bicycles at the front of the restaurant to encourage multimodal activities. Existing sidewalks adjacent to the project frontage would remain. There are currently no designated bicycle lanes adjacent to the project site. General Plan Figure CM-3 identifies a future Class III (On-Street) bicycle facility on Almond Avenue. The project would slightly shift the existing driveways entering/exiting the site along Almond Avenue and Main Street towards the western and southern project boundary, respectively; however, the number of driveways would not increase. Additionally, the existing OCTA bus stop along Main Street would be relocated approximately 100 feet to the south and would be constructed with similar signage and bench, consistent with OCTA requirements. Overall, the proposed pedestrian and bicyclist improvements and relocated driveways and OCTA bus stop would maintain and enhance the existing multi-modal circulation system in the project area. During peak operating times, should queuing occur beyond the available storage within the drive-thru lanes (17 vehicles), staff would go out to the drive-thru lanes to assist with ordering via Chick-fil-A's iPad ordering system. Based on data from Chick-fil-A's other comparable stores, the iPad ordering system increases the drive-thru speed of service by 30 percent than the typical speaker box. It is acknowledged that the iPad ordering system is always used during peak hours of 11:30 am to 1:30 pm and any additional time when needed. Additionally, should the vehicle queue extend onto Almond Avenue, Mitigation Measure TRA-1 would ensure Chick-fil-A staff direct customers to utilize the Main Street access to enter the drive-thru lane. Chick-fil-A management would also direct staff to park in the stalls closest to the drive-thru entrance along Almond Avenue. This would allow stacking, if needed. As such, all drive-thru queuing would be contained on-site and would not adversely impact traffic flow along Almond Avenue.
Policy 1.3	Consider various methods to increase safety on City arterials and neighborhood streets, including landscaping, provision of bike/transit lanes, and consideration of traffic calming on neighborhood streets in accordance with the City's Neighborhood Residential Traffic Management Program.	Consistent. The project site is located in close proximity to single and multi-family residences to the west along Almond Avenue. The project would incorporate landscaping along the site perimeter to connect to existing greenways along Almond Avenue and Main Street. Additionally, the project would implement an on-site transportation circulation plan to ensure queueing in the drive-thru lane would not impact traffic flow along surrounding roadways, primarily Almond Avenue (refer to the discussion for Policy 1.1 above).

Table 4.10-1, continued

Policy #	Policy	Determination of Consistency
Policy 1.7	Consolidate driveways along roadways that provide access to commercial uses to minimize side street interruption and promote smooth traffic flows. On-street parking is prohibited on commercial access streets to provide adequate curb-to-curb width for travel lanes.	Consistent. The project site is currently accessed by two full-access driveways (one on Almond Avenue and one on Main Street). With implementation of the proposed project, the site would be accessed by one unsignalized, full-access driveway located along Almond Avenue and one unsignalized, right-turn in/right-turn out only driveway located along Main Street. Table 4.16-15, *Project Driveway Peak Hour Levels of Service Summary*, indicates the two proposed project driveways would operate at an acceptable Level of Service (LOS) during morning and evening peak hour periods for year 2020 with project conditions. Additionally, no on-street parking is proposed or would be allowed along Main Street and Almond Avenue per City requirements.
Goal 3: Connect centers within the City to each other and to the region through efficient and accessible public transportation.		
Policy 3.3	Require incorporation of transit-oriented design features within major commercial and employment areas as well as in medium density residential and mixed-use development areas.	Consistent. While the project site is proposing a General Plan Amendment from NMIX to CG for development of a drive-thru restaurant, the project does incorporate design features to encourage patrons to access the site from transit or non-motorized options, such as walking and biking. Two OCTA bus stops are located less than 0.05-mile from the project site. The project would include one electric vehicle charging station as well as parking for 12 bicycles. Two striped pathways from Main Street and Almond Avenue to the Chick-fil-A restaurant would be constructed to allow for pedestrian connectivity along the two adjacent roadways and surrounding commercial and residential uses. Perimeter site landscaping including shrubs and trees would improve the pedestrian experience adjacent to the project site. In an effort to improve the street presence of the project, the project would also include a landmark feature as a large planter at the northeast corner of the site with 'City of Orange' lettering to promote community identity and provide a streetscape enhancement at the Main Street and Almond Avenue intersection.
Goal 4: Provide efficient and accessible modes of pedestrian, bicycle, and equestrian transportation and improved facilities and amenities.		
Policy 4.1	Create a comprehensive bicycle network that is integrated with other transportation systems by establishing complementary on-street and off-street facilities as identified in the City of Orange Bikeways Master Plan and OCTA Commuter Bikeways Strategic Plan, including Santiago Creek, the Santa Ana River, and the Tustin Branch Trail.	Consistent. There are currently no designated bicycle lanes adjacent to the project site; Almond Avenue is identified for future Class III (On-Street) bicycle facilities (refer to Section 4.16, Transportation/Traffic). The project would provide bicycle parking for patrons and two striped pathways from Main Street and Almond Avenue to the Chick-fil-A restaurant would be constructed to allow for pedestrian connectivity along the two adjacent roadways and surrounding commercial and residential uses. The project would not significantly alter the location of the existing driveways entering/exiting the site; nor would it increase the number of driveways that occur. Thus, the project would not interfere with the ability to provide a future Class III bicycle facility on Almond Avenue.
Policy 4.2	Install racks and safe storage facilities at parking areas for City facilities, as appropriate, and encourage incorporation of such facilities within privately-developed projects.	Consistent. The project would provide parking storage for up to 12 bicycles at the front of the restaurant building; refer to Exhibit 2-3, *Site Plan*.
Policy 4.4	Encourage use of the bikeway system by providing adequate signage, trail markings, and other amenities.	Consistent. Refer to Circulation & Mobility Element Policy 4.2.

Table 4.10-1, continued

Policy #	Policy	Determination of Consistency
Policy 4.5	Ensure that pedestrian sidewalks, trails, and bikeways are safe environments through the use of crime prevention-oriented trail design features, lighting where appropriate, pedestrian and bicycle safety improvements at at-grade rail crossings, access for emergency vehicles, and links to the roadway signal system.	Consistent. The two proposed pedestrian pathways from Main Street and Almond Avenue to the Chick-fil-A restaurant building would include pedestrian striping to ensure vehicles driving through the parking lot can clearly see the pedestrian walkways. Bicycle storage is also proposed at the front of the restaurant building in a convenient and safe location. Interior site signage would be used to direct patrons to the drive-thru aisle and toward the exits, as appropriate. Additionally, landscaping would be implemented along the site perimeter and sidewalks, which would provide a clear line of sight for pedestrians and bicyclists to safely cross the two proposed driveways along Main Street and Almond Avenue.
Policy 4.7	Provide ADA accessible sidewalks and pedestrian amenities throughout the City.	Consistent. The proposed building and parking lot area would be subject to ADA requirements, including required widths and for entryways, paths, ramps, etc. The ADA ramp at the corner of Main Street and Almond Avenue would not be impacted by project development.
Goal 5: Provide adequate parking to meet the needs of activity centers throughout the City.		
Policy 5.2	Plan for and design parking facilities throughout the City that are adequate to meet demand, but also consider land use-parking efficiencies, and the surrounding natural and built environment.	Consistent. Considering the parking demand for the proposed fast food restaurant use, the project would reduce on-site parking spaces from 70 to 48 spaces (46 standard spaces [including one electric vehicle space] and two handicap spaces). Motorcycle parking and an area for bicycle parking for patrons would also be provided. The reduced number of parking spaces would still meet the project's demands while considering land use-parking efficiencies and the surrounding mixed-use and residential neighborhoods. Additionally, the project's on-site transportation circulation plan (Mitigation Measure TRA-1) would ensure potential drive-thru queuing does not adversely impact on- and off-site circulation (refer to the discussion for Policy 1.1 above).
Goal 6: Provide roadway corridors that are aesthetically pleasing and contribute to a feeling of safety, security, and comfort for motorists, bicyclists, and pedestrians.		
Policy 6.1	Supply adequate, clear, and correctly placed signage to direct both motorists and non-motorists toward destinations and away from hazards.	Consistent. Refer to Circulation & Mobility Element Policy 4.5.
Policy 6.2	Provide clear indicators in the right-of-way for where pedestrians and bicyclists are encouraged to walk, bike, or cross safely. These may include special paving, line stripes, and crosswalks.	Consistent. Refer to Circulation & Mobility Element Policy 4.5.
Policy 6.3	Provide lighting, landscaping, street trees, and other appropriately scaled streetscape features that accommodate all users on commercial corridors. Where appropriate, lighting should be scaled for autos as well as pedestrians.	Consistent. Refer to Land Use Element Policy 6.8. Security lighting would be provided throughout the site, as well as interior signage and associated lighting consistent with the surrounding area.

Table 4.10-1, continued

Policy #	Policy	Determination of Consistency
Natural Resources Element		
Goal 2: Protect air, water, and energy resources from pollution and overuse.		
Policy 2.1	Cooperate with the South Coast Air Quality Management District (SCAQMD) and other regional agencies to implement and enforce regional air quality management plans.	Consistent. As detailed in Section 4.3, the proposed project would be consistent with the land use planning strategies set forth in the SCAQMD *2016 Air Quality Management Plan* and would not exceed any construction or operational emissions thresholds established by SCAQMD.
Policy 2.2	Support alternative transportation modes, alternative technologies, and bicycle- and pedestrian-friendly neighborhoods to reduce emissions related to vehicular travel.	Consistent. The project is located near a variety of residential, medical office, and commercial uses and would be easily walkable and accessible to residents and employees of surrounding uses. In addition, two OCTA bus stops are located less than 0.05-mile from the project site. The bus stop along Main Street would be relocated approximately 100 feet to the south and would be constructed with similar signage and bench, consistent with OCTA requirements. The project would include one electric vehicle charging station as well as parking for 12 bicycles. Two striped pathways from Main Street and Almond Avenue to the Chick-fil-A restaurant would be constructed to allow for pedestrian connectivity along the two adjacent roadways and surrounding commercial and residential uses.
Policy 2.5	Continue to work toward local and regional waste-reduction and diversion/ recycling goals and promote public education programs.	Consistent. The proposed project would be required to comply with 50 percent diversion requirements under Assembly Bill 939 and Municipal Code Section 8.28.
Policy 2.6	Encourage sustainable building and site designs for new construction and renovation projects.	Consistent. The proposed project would comply with the latest Title 24 requirements as well as the California Green Building Code standards. The project would install energy efficient lighting throughout the project site and appliances within the restaurant. Additionally, the project would install water efficient irrigation systems, and incorporate water reducing features and fixtures into the buildings.
Policy 2.8	Encourage development that incorporates pedestrian- and transit-oriented design and landscape elements.	Consistent. Two striped pathways from Main Street and Almond Avenue to the Chick-fil-A restaurant would be constructed to allow for pedestrian connectivity along the two adjacent roadways and from surrounding commercial and residential uses. Sidewalks are currently available adjacent to the project site and would not be altered as a result of the project. Perimeter site landscaping including shrubs and trees would improve the pedestrian experience adjacent to the project site. In an effort to improve the street presence of the project, the project would also include a landmark feature as a large planter at the northeast corner of the site with 'City of Orange' lettering to promote community identity and provide a streetscape enhancement at the Main Street and Almond Avenue intersection.

Table 4.10-1, continued

Policy #	Policy	Determination of Consistency
Policy 2.11	Protect the ecological integrity and overall health of Orange's watersheds.	Consistent. The project would be subject to the State Water Resources Control Board's National Pollutant Discharge Elimination System requirements, the County's Drainage Area Management Plan, BMPs included in the project's Water Quality Management Plan, and Municipal Code Chapter 7.01 to ensure project impacts on water quality are reduced to less than significant levels. The project's Water Quality Management Plan is included as Appendix 8.5, *Hydrology and Water Quality Reports*.
Policy 2.12	Cooperate with water supply agencies to protect the quantity and quality of local groundwater supplies.	Consistent. The project would not deplete local groundwater supplies. Groundwater was not encountered during subsurface investigations on-site and the project would not create a substantial demand on groundwater resources that would adversely impact the amount of groundwater available and pumped from local wells.
Policy 2.13	Control surface runoff water discharges into the stormwater conveyance system to comply with the City's National Pollutant Discharge Elimination System (NPDES) Municipal Permit and other regional permits issued by the Santa Ana Regional Water Quality Control Board.	Consistent. Refer to Natural Resources Element Policy 2.11.
Policy 2.14	Reduce pollutant runoff from new development by requiring use of the most low development impact practices and effective Best Management Practices (BMPs) currently available.	Consistent. Refer to Natural Resources Element Policy 2.11.
Policy 2.15	Minimize the amount of impervious surfaces and associated urban runoff pollutants in new development and significant redevelopment throughout the community.	Consistent. Development of the project would result in a decrease in impervious areas from 99.1 percent to 86.0 percent, a 13.1 percent reduction due to increased pervious landscaping areas. Additionally, an underground infiltration system would be installed to capture runoff pollutants that can then be filtered of trash, debris, sediments, and hydrocarbons by a debris separator installed upstream from the underground infiltration system.
Noise Element		
Goal 1: Promote a pattern of land uses compatible with current and future noise levels.		
Policy 1.1	Consider potential excessive noise levels when making land use planning decisions.	Consistent. As analyzed in Section 4.12, project construction and operations would not exceed established noise thresholds and would be further reduced with implementation of Mitigation Measure NOI-1, which incorporates BMPs to reduce construction noise.
Policy 1.2	Encourage new development projects to provide sufficient spatial buffers to separate excessive noise generating land uses and noise-sensitive land uses.	Consistent. Refer to Noise Element Policy 1.1. No spatial buffer is required as part of the project as construction and operational noise impacts are less than significant.

Table 4.10-1, continued

Policy #	Policy	Determination of Consistency
Policy 1.3	Incorporate design features into residential and mixed-use projects that can be used to shield residents from excessive noise.	Consistent. As analyzed in Section 4.12, noise impacts associated with operations of the fast food facility, including mobile and stationary noise sources, would result in less than significant impacts. Additionally, Chick-fil-A would incorporate Automatic Volume control technology in the drive-thru order speakers, which adjusts the outbound volume based on outdoor ambient noise levels. For example, when the outside noise levels decrease in the evening, the automatic volume control speakers would reduce the outbound volume. Thus, the project would shield the nearest residents from any excessive noise generated on-site.
Policy 1.4	Ensure that acceptable noise levels are maintained near noise-sensitive uses.	Consistent. Refer to Noise Element Policy 1.1.
Policy 1.5	Reduce impacts of high-noise activity centers located near residential areas.	Consistent. Refer to Noise Element Policies 1.1 and 1.3.
Policy 1.6	Require an acoustical study for proposed developments in areas where the existing and projected noise level exceeds or would exceed the maximum allowable levels identified in Table N-3. The acoustical study shall be performed in accordance with the requirements set forth within this Noise Element.	Consistent. A noise analysis was conducted for the proposed project and concluded that project-generated noise would not exceed maximum allowable levels established by the City.
Goal 2: Minimize vehicular traffic noise in residential areas and near noise-sensitive land uses.		
Policy 2.1	Encourage noise-compatible land uses along existing and future roadways, highways, and freeways.	Consistent. The proposed Chick-fil-A restaurant is a compatible use to be located adjacent to existing roadways and would not be adversely impacted by vehicular traffic noise.
Policy 2.2	Encourage coordinated site planning and traffic control measures that minimize traffic noise in noise-sensitive land use areas.	Consistent. Refer to Noise Element Policy 1.1. Implementation of Mitigation Measure NOI-1 would ensure construction noise is reduced to less than significant levels. Operational noise impacts would be less than significant without mitigation; therefore, no traffic control measures would be required.
Policy 2.3	Encourage the use of alternative transportation modes such as walking, bicycling, mass transit, and alternative fuel vehicles to minimize traffic noise.	Consistent. The project is located near a variety of residential, medical office, and commercial uses and would be easily walkable and accessible to residents and employees of surrounding uses. The project would include one electric vehicle charging station as well as parking for 12 bicycles. Sidewalks are currently available adjacent to the project site and would not be altered as a result of the project. Two striped pathways from Main Street and Almond Avenue to the Chick-fil-A restaurant would be constructed to allow for pedestrian connectivity along the two adjacent roadways and surrounding commercial and residential uses. Perimeter site landscaping including shrubs and trees would improve the pedestrian experience adjacent to the project site. The project would also include a landmark feature as a large planter at the northeast corner of the site with 'City of Orange' lettering to promote community identity and provide a streetscape enhancement at the Main Street and Almond Avenue intersection. In addition, two OCTA bus stops are located less than 0.05-mile from the project site.

Table 4.10-1, continued

Policy #	Policy	Determination of Consistency
Goal 7: Minimize construction, maintenance vehicle, and nuisance noise in residential areas and near noise-sensitive land uses.		
Policy 7.2	Require developers and contractors to employ noise minimizing techniques during construction and maintenance operations.	Consistent. The project would comply with noise limits specified in the Municipal Code. Additionally, implementation of Mitigation Measure NOI-1 would further minimize impacts from construction noise as it requires construction equipment to be equipped with properly operating and maintained mufflers and other State required noise attenuation devices; identifies permitted construction haul routes to avoid noise-sensitive uses; and limits construction activities to the allowable hours specified in Municipal Code Section 8.24.050.
Policy 7.3	Limit the hours of construction and maintenance operations located adjacent to noise-sensitive land uses.	Consistent. Refer to Noise Element Policy 7.2.
Cultural Resources and Historic Preservation Element		
Goal 4: Identify and preserve archaeological and cultural resources.		
Policy 4.1	Identify, designate, and protect historically and culturally significant archaeological resources or sites.	Consistent. Implementation of Mitigation Measures CUL-1 and CUL-2 detailed in Section 4.5, *Cultural Resources*, would ensure any cultural resources discovered during ground-disturbing activities on-site are fully evaluated by a qualified archaeologist and/or paleontologist and protected if found to be culturally significant.
Policy 4.3	Encourage curation of any cultural resources and artifacts recovered in the City for public education and appreciation.	Consistent. The project would be required to implement Mitigation Measures CUL-1 and CUL-2 which require the applicant to retain a qualified archaeologist and paleontologist in the event cultural resources are encountered during ground-disturbing activities. The qualified professionals would evaluate the find and determine its cultural significance. Curation of the resource is an option that may be recommended by the qualified archaeologist and/or paleontologist as part of the required course of action.
Infrastructure Element		
Goal 1: Ensure water, sewer, and storm drain systems that meet the needs of residents and businesses.		
Policy 1.1	Provide sufficient levels of water, sewer, and storm drain service throughout the community.	Consistent. As detailed in Section 4.18, the project would have a less than significant impact on the City's water, sewer, and storm drain services. The project itself would also install new water and sewer lines and an underground infiltration system to connect with the City's existing water, sewer, and storm drain systems in Main Street and Almond Avenue.
Policy 1.3	Promote water conservation programs aimed at reducing demands.	Consistent. The project would be designed such that it fully conforms with the regulations for water efficiency identified in the California Building Standards Code (California Code of Regulations, Title 24), Part 5, California Plumbing Code; Part 11, California Green Building Standards Code; and the Model Water Efficient Landscape Ordinance (California Code of Regulations, Title 23, Division 2, Chapter 2.7). The project would also be subject to conformance with the City's Water Conservation and Water Supply Shortage Program, which enforces permanent water reduction and landscape water efficiency measures per Municipal Code Chapter 7.02.

Table 4.10-1, continued

Policy #	Policy	Determination of Consistency
Policy 1.4	Explore environmentally efficient infrastructure improvements such as the use of reclaimed water, maximizing percolation, and similar technologies.	Consistent. Refer to Land Use Element Policy 6.5. Additionally, project development would result in a decrease in impervious areas from 99.1 percent to 86.0 percent, a 13.1 percent reduction due to increased pervious landscaping areas.
Policy 1.5	Investigate and carry out cost-effective methods to reduce storm water infiltration into the sewer system.	Consistent. Refer to Land Use Element Policy 6.5.
Policy 1.6	Require that new developments fund fair-share costs associated with City provision of water, sewer, and storm drain service and are consistent with City and service provider plans to complete needed improvements and funding capacity for such improvements.	Consistent. The project would be subject to Municipal Code Section 13.56.090, which imposes a sewer main connection fee that assists in ensuring that sufficient sewer capacity is available and that wastewater treatment requirements of the Regional Water Quality Control Board are met. Additionally, the project would be required to pay development impact fees to mitigate project impacts on the City's infrastructure services.
Goal 2: Reduce the amount of waste material entering regional landfills with an efficient and innovative waste management program.		
Policy 2.1	Provide sufficient levels of solid waste service throughout the community.	Consistent. As detailed in Section 4.18, the project's estimated 27.4 pounds per day of solid waste generation would represent less than one percent of the combined maximum daily throughput of the City's three primary solid waste facilities (23,500 tons per day). The project would also be subject to compliance with Municipal Code Section 8.28, which details collection regulations and mandatory recycling of construction and demolition waste. Project impacts on solid waste services would be less than significant.
Goal 3: Ensure adequate maintenance of public rights-of-way to enhance public safety and improve circulation.		
Policy 3.6	Require that new developments fund fair-share costs associated with City provision of right-of-way maintenance services and are consistent with City and service provider plans to complete needed improvements and funding capacity for such improvements.	Consistent. The project would be subject to the City's development impact fees, which includes a Transportation System Improvement Program fee collected for all land use types. Fair-share fees collected would go towards the City's funds for transportation improvements.
Goal 4: Ensure adequate provision of electricity, natural gas, telephone and data services and cable television.		
Policy 4.1	Continue to work with dry utility service providers to ensure that the community's current and future needs are met.	Consistent. The project's dry utilities (electric, cable, telephone, and gas) would connect to existing lines in West Almond Avenue and would require coordination with utility providers to obtain connection permits for services.
Policy 4.2	Continue to require utilities to be placed underground for new development.	Consistent. All dry utility connections proposed would be placed underground.
Economic Development Element		
Goal 3: Strengthen the City's economic base and stimulate employment through new commercial and industrial development and expansion.		
Policy 3.2	Encourage public and private sector investments that promote commercial development and expansion opportunities.	Consistent. The proposed project is a private development that would introduce revenue and job opportunities within the City. The project would also allow an existing business, Chick-fil-A, to expand its presence in the community by providing a secondary location in Orange.

Table 4.10-1, continued

Policy #	Policy	Determination of Consistency
Goal 5: Improve economic viability of business districts through aesthetic enhancement, reconstruction, rehabilitation, and elimination of physical deterioration.		
Policy 5.3	Improve the long-term economic viability of Old Towne, South Main Street, Katella Avenue, Uptown Orange, The Outlets at Orange, and the Town and Country Road area by introducing mixed-use residential, commercial, and office projects that are visually and economically compatible with their surroundings.	Consistent. Although the project is not mixed-use, the project would revitalize the property from a vacant, former restaurant to a new restaurant facility that would contribute towards the long-term economic viability of South Main Street. As stated above, the proposed Chick-fil-A restaurant and associated hardscape and landscape improvements would be visually compatible with adjacent uses. In an effort to improve the street presence of the project, the project would include a landmark feature as a large planter at the northeast corner of the site with 'City of Orange' lettering to promote community identity and provide a streetscape enhancement at the Main Street and Almond Avenue intersection.
Policy 5.4	Redevelop and rehabilitate underutilized and vacant lands and public rights-of-way to stimulate development, and consider conversion of vacant lands to community amenities.	Consistent. Refer to Response to Economic Development Element Policy 5.3. The proposed project would replace a closed restaurant and deteriorated building with a new restaurant facility and associated hardscape and landscape improvements. While the project would involve rezoning the site from NMU-24 to C-2, which would reduce the minimum FAR requirement, the proposed development would redevelop and rehabilitate an underutilized site from its current condition. As stated, the site is currently developed with a deteriorated and non-operating restaurant structure, thus, providing limited to no utility in its current condition. The proposed development would still meet most of the NMU-24 zone special design requirements for drive-thru restaurants, including, but not limited to, placing the drive thru lane away from circulation routes, parking areas and pedestrian walkways, and not adjacent to streets; width of the drive thru lanes; provision of a queueing analysis to demonstrate adequate site operations; providing adequate distance from the site driveway and drive thru entrance; providing adequate distance from the drive thru entrance and menu board; menu board and loud speaker operation; enhanced pedestrian walkways; and adequate safety. Overall, the project would be consistent with the NMU-24 zone with the exception of the minimum FAR requirement and several special design requirements related to street-oriented development; refer to Response to Urban Design Element Policies 1.5 and 2.1, below.
Goal 6: Provide sufficient infrastructure to support anticipated economic development and growth.		
Policy 6.1	Provide and maintain infrastructure adequate to support growth and expansion of commercial, industrial, and institutional areas, including water, sewer, streets, curbs, gutters, sidewalks, storm drains, access, and parking improvements.	Consistent. Refer to Infrastructure Element Policy 1.1. Curb and gutter improvements are also proposed off-site along the eastern portion of the project site along South Main Street and the project would provide 48 vehicle parking spaces, motorcycle parking, and an area for bicycle parking for patrons.

Table 4.10-1, continued

Policy #	Policy	Determination of Consistency
Public Safety Element		
Goal 1: Protect residents and businesses from seismic hazards and other geologic constraints.		
Policy 1.1	Minimize the potential loss of life and damage to structures that may result from an earthquake.	Consistent. The project would be subject to compliance with applicable seismic-related design requirements under the California Building Code (CBC) and recommended actions from the project's Geotechnical Investigation, which would be incorporated as conditions to the project's building permit. Compliance with the CBC and Geotechnical Investigation would minimize potential impacts associated with earthquakes.
Goal 2: Protect the City from flood-related risks and hazards.		
Policy 2.4	Employ strategies and design features that will reduce the amount of impervious surface (i.e. paved area) within new development projects.	Consistent. The project would result in a decrease in impervious areas from 99.1 percent to 86.0 percent, a 13.1 percent reduction due to increased pervious landscaping areas.
Goal 3: Protect lives and property of Orange residents and businesses from urban and wildland fire hazards.		
Policy 3.4	Provide adequate fire equipment access and fire suppression resources to all developed and open space areas.	Consistent. The City of Orange Fire Department currently provides fire protection services to the project site. The project would be subject to City site/building plan review to ensure that the project meets fire safety requirements. The proposed project would also include features such as fire-resistant construction materials, fire alarm/sprinkler systems, and hydrants. Additionally, the project would provide adequate emergency access for fire vehicles with access via Main Street; refer to Exhibit 4.14-1, *Fire Access*. As such, project implementation would not adversely impact the City's response time and service standards.
Policy 3.5	Establish and maintain optimal emergency response times for fire safety. Require new development to ensure that City response time and service standards are maintained.	Consistent. Refer to Public Safety Element Policy 3.4.
Goal 4: Minimize risks to life, property, and the environment associated with producing, using, storing, or transporting hazardous materials.		
Policy 4.2	Prohibit new disposal, transport, manufacture, and storage of hazardous materials within the City without a mitigation plan in case of accidents. Hospitals meeting current state and federal standards are exempt.	Consistent. Substantial risks associated with hazardous materials are not typically associated with restaurant uses. Minor cleaning products and the occasional use of pesticides and herbicides for landscape maintenance are the general extent of hazardous materials that would be routinely utilized on-site. Additionally, limited amounts of hazardous materials would be utilized during construction of the project. However, all routine disposal, transport, use, and storage of hazardous materials would be required to adhere to State and local standard and regulations.
Goal 7: Improve community safety and reduce opportunities for criminal activity.		
Policy 7.2	Promote and integrate crime-preventive characteristics and design features into all phases of the planning and development process.	Consistent. The proposed project plans would be reviewed by the Orange Police Department during the plan check process to ensure the project provides adequate safety and crime-preventative design, as needed.

Table 4.10-1, continued

Policy #	Policy	Determination of Consistency
Policy 7.3	Maximize natural surveillance through physical design features, including, but not limited to, visible entryways from surrounding structures and businesses; well defined and visible walkways and gates; well-lighted driveways, walkways, and exteriors; and landscaping that preserves or enhances visibility.	Consistent. As shown on Exhibit 2-3, the restaurant building would be located in the southern portion of the site with the remaining area developed as surface parking and a drive-thru pathway. The parking lot would be well defined with lighting and pedestrian walkway striping. Landscaping along the site perimeter would consist of shrubs to screen the parking area from public streets without reducing visibility. Additionally, the restaurant building would have adequate interior and exterior lighting with large windows facing the parking lot that enable employees and patrons to observe parking lot activity.
Policy 7.6	Continue to involve the Orange Police Department in the project design and review process.	Consistent. Refer to Public Safety Element Policy 7.2.
Goal 9: Provide safe pedestrian and bicycle environments.		
Policy 9.1	Enhance and maintain safe pedestrian and bicycle movement through the integration of traffic control devices, crosswalks, and pedestrian-oriented lighting, into the design of streets, sidewalks, trails, and school routes throughout Orange.	Consistent. The parking lot would be well defined with lighting and two striped pedestrian walkways from Main Street and Almond Avenue to the Chick-fil-A restaurant would provide pedestrian connectivity from the two adjacent roadways and surrounding commercial and residential uses. Additionally, parking storage for 12 bicycles would be provided at the front of the restaurant building for a safe and convenient location. Landscaping along the site perimeter and existing sidewalks would also be implemented to provide a buffer and clear line of sight for pedestrians and bicyclists to safely cross the site's two driveways along Almond Avenue and Main Street.
Urban Design Element		
Goal 1: Promote streetscapes that enhance the economic vitality and overall visual quality of commercial corridors, support the circulation network, and support pedestrian-scale streets and patterns of activity.		
Policy 1.5	Emphasize street-oriented development, with parking located behind or next to buildings rather than in front. Encourage commercial activities such as sidewalk and outdoor dining.	Inconsistent. As shown on Exhibit 2-3, the Chick-fil-A building would be located in the southern portion of the site with parking located in front of the building adjacent to Almond Avenue and Main Street. Two striped pedestrian pathways would connect the restaurant building to Main Street and Almond Avenue and surrounding commercial and residential uses. Landscaping would be provided along the perimeter of the property and contribute towards the visual and spatial experience of drivers, transit riders, and pedestrians. In an effort to improve the street presence of the project, the project would include a landmark feature as a large planter at the northeast corner of the site with 'City of Orange' lettering to promote community identity and provide a streetscape enhancement at the Main Street and Almond Avenue intersection. Although the operational requirements of the restaurant would not allow for placement of the building in a manner that emphasizes street-oriented development, it would allow the drive-thru lanes to wrap around the western and southern site perimeter, ensuring the lanes would not obstruct circulation routes for access, parking, and pedestrian walkways. Additionally, the location of the drive-thru lanes would provide the storage necessary to accommodate anticipated drive through operations throughout the day within the

Table 4.10-1, continued

Policy #	Policy	Determination of Consistency
		drive-thru lanes and provide a substantial separation between queuing cars and the sidewalk. However, as the project would still place parking in front of the restaurant building, it would be inconsistent with Urban Design Element Policy 1.5.
Goal 2: Create commercial and mixed-use areas of varying scale and function that are visually distinct and complement the City's identity.		
Policy 2.1	Transform corridors such as Chapman Avenue, Main Street, The City Drive, and Katella Avenue into active, pedestrian-friendly streets that balance auto, transit, and pedestrian mobility. These streets should accommodate compact development that is oriented to the sidewalks to promote active street life.	Inconsistent. As the site is comprised of 0.95-acres and the project proposes a fast food facility, the project's contribution to the transformation of Main Street into an active, multimodal corridor would be limited. However, employees and residents of residential, medical office, and commercial uses nearby would be able to conveniently walk to the site for lunch or dinner. Additionally, the project would develop two pedestrian walkways from Main Street (43 feet in length) and Almond Avenue (83 feet in length) to the restaurant building and install bicycle racks on-site to connect to the adjacent sidewalks and OCTA transit stops. Landscaping would be provided along the perimeter of the property and contribute towards the visual and spatial experience of drivers, transit riders, and pedestrians. In an effort to enhance the project's street presence, the project would include a landmark feature as a large planter at the northeast corner of the site with 'City of Orange' lettering to promote community identity and provide a streetscape enhancement at the Main Street and Almond Avenue intersection. Compared to the site's existing condition as a vacant restaurant building, the project would better promote active street life along Main Street and the general site vicinity. However, the proposed General Plan Amendment would reduce the site's minimum FAR and would not accommodate compact development oriented to the sidewalks, as discussed under Urban Design Element Policy 1.5. Therefore, the project would also be inconsistent with this policy.
Policy 2.2	Provide convenient pedestrian and transit access throughout commercial and mixed-use corridors, including an interconnected network of high-amenity streetscapes, attractive and comfortable transit stops, and multiple walkways that connect activities and uses.	Consistent. The project would develop two pedestrian walkways from Main Street (43 feet in length) and Almond Avenue (83 feet in length) to the restaurant building and install bicycle racks on-site to connect to the adjacent sidewalks and OCTA transit stops. The OCTA bus stop along Main Street adjacent to the site would be relocated approximately 100 feet to the south but would continue to provide transit services along Main Street. Additionally, landscaping would be provided along the perimeter of the property to connect with existing greenways along Almond Avenue and Main Street and contribute towards the visual and spatial experience of drivers, transit riders, and pedestrians. In an effort to enhance the project's street presence, the project would also include a landmark feature as a large planter at the northeast corner of the site with 'City of Orange' lettering to promote community identity and provide a streetscape enhancement at the project intersection.

Table 4.10-1, continued

Policy #	Policy	Determination of Consistency
Policy 2.3	Improve the appearance of arterials and corridors that pass through commercial and mixed-use areas. Use street trees and other landscape and hardscape improvements to improve the visual and spatial experience of drivers, transit riders, and pedestrians using City streets.	Consistent. Refer to Urban Design Element Policy 2.2.
Goal 3: Express the City's distinct community identity and sense of place through improvements to the appearance of new development and commercial and mixed-use corridors.		
Policy 3.1	Promote community identity through streetscape enhancements, building designs, and treatments marking the primary entrances to the City.	Consistent. The project would include a landmark feature as a large planter at the northeast corner of the site with 'City of Orange' lettering to promote community identity and provide a streetscape enhancement at the Main Street and Almond Avenue intersection.
Goal 4: Establish and reinforce district and neighborhood characteristics recognized both within the community and throughout the region.		
Policy 4.1	Establish appropriate transitions between commercial, industrial, higher density residential, mixed-use development, and lower density residential areas.	Consistent. The project site is located in the northernmost NMU-24 designated area along Main Street and is directly adjacent to a GC designated commercial corridor along Chapman Avenue. While the project's proposed General Plan Amendment and Zone Change would redesignate and rezone the site from mixed-use to commercial, the project would still meet many of the NMU-24 and NMIX zone development standards, thereby contributing towards establishing an appropriate transition between mixed-use and commercial developments in the site vicinity.
Policy 4.2	Encourage the use of creative landscape designs to visually define districts and reduce conflicts between residential and commercial land uses.	Consistent. The project site does not abut residential uses. However, trees and shrubs would be planted along Almond Avenue and Main Street and along the western and southern perimeters adjacent to the existing concrete masonry unit walls. The greenways proposed along Almond Avenue would connect to existing landscaped sidewalks to the west adjacent to single- and multi-family residential neighborhoods to minimize land use conflicts between the existing residences and proposed commercial use. Landscaping would also be provided within the parking areas, on berms, and surrounding the proposed restaurant structure; refer to Exhibit 2-3.
Goal 6: Encourage contextually appropriate infill development projects and property renovations.		
Policy 6.1	Encourage consistent high quality design of development projects, and provide development standards that ensure building and site design that is well integrated with infrastructure and circulation systems.	Consistent. The project proposes to change the site's existing zoning from NMU-24 to C-2. Upon approval, the project's maximum building height, minimum setbacks, signage, landscaping, and other development characteristics would be required to comply with the development regulations detailed in Municipal Code Chapter 17.18, *Commercial Districts*, for C-2 zone, and would be consistent with the City of Orange zoning regulations for the C-2 zone and the Southwest Project Area Design Standards; refer to Tables 4.10-3 and 4.10-4.
Policy 6.2	Ensure that new infill development contributes positively to the quality of the surrounding corridor or neighborhood, including the potential to	Consistent. The proposed infill development would contribute positively to the quality of the surrounding neighborhood by replacing a vacant, deteriorated building with a restaurant and associated landscape and hardscape improvements. The project would be consistent with the developed nature of the area and

Table 4.10-1, continued

Policy #	Policy	Determination of Consistency
	provide additional park space, and minimize the visibility of on-site parking.	would integrate into the existing visual character of the surrounding vicinity, which includes other single-story commercial and office buildings. The proposed restaurant would also provide a place for nearby residents and workers to get lunch or dinner within walking distance to the adjacent residential neighborhoods and office uses. The project would reduce the number of parking spaces on-site form 70 to 48 spaces and would minimize the visibility of on-site parking, by planting trees and shrubs along the site perimeter. Further, the project's on-site transportation circulation plan required under Mitigation Measure TRA-1 would prevent drive-thru queuing on-site and onto Almond Avenue by requiring Chick-fil-A staff to monitor queues and to go out to the drive-thru lanes to take orders with hand held ordering and payment devices to increase ordering efficiencies and reduce queue lengths. The drive-thru would provide stacking for up to 17 vehicles from the entry to the pick-up window with additional on-site overflow space as needed. Should the vehicle queue extend onto Almond Avenue, Mitigation Measure TRA-1 would ensure Chick-fil-A staff direct customers to utilize the Main Street access to enter the drive-thru lane. Chick-fil-A management would also be required to direct staff to park in the stalls closest to the drive-thru entrance along Almond Avenue. This would allow stacking, if needed.
Policy 6.4	Promote the renovation and upgrading of older commercial developments to create more attractive and functional retail environments.	Consistent. The former restaurant building on-site was constructed in the early 1960s and is currently vacant and deteriorated. The project would demolish and redevelop the site with a more architecturally attractive building consistent with the proposed C-2 zoning development standards. Landscaping would also be provided along the site perimeter to create a more attractive commercial use. For example, the site perimeter would be planted with trees and shrubs connecting to the adjacent greenways along the existing sidewalks; trees, shrubs, and vines would be planted within the interior of the site along drive aisles and surrounding the restaurant building; and a large planter with 'City of Orange' lettering would be installed in the northeast corner of the site as a landmark feature to give the project more street presence and community identity at the Main Street and Almond Avenue intersection. Additionally, as stated above, the project's on-site transportation circulation plan would ensure the drive-thru lane queues function appropriately and do not adversely impact on- or off-site circulation flow with implementation of Mitigation Measure TRA-1.
Policy 6.5	Provide logical transitions between higher intensity development within the City's established commercial, office, and institutional corridors and nearby single-family neighborhoods. Scale, massing, and the location of services within these corridors should respond sensitively to adjacent residential uses.	Consistent. The nearest residential uses to the project site are single-family residences to the northwest across Almond Avenue and multifamily residences to the west of the existing preschool that abuts the site. Other surrounding uses in the area include medical and professional office buildings. The proposed Chick-fil-A restaurant is not considered high intensity development and would be compatible with nearby residential, medical, and office buildings nearby. The restaurant building would be located in the southern portion of the site, closest to the three-story medical office building to the south in a way that would consolidate building structures in closer vicinity. At the same time, the single-story restaurant building would be compatible with the adjacent single-story

Table 4.10-1, continued

Policy #	Policy	Determination of Consistency
		preschool abutting the site to the west, both with surface parking lots along the street frontage. Overall, the uses near the Almond Avenue and Main Street intersection are a mix of commercial, office, and residential; therefore, the project would be consistent with nearby uses and provide a logical transition between the higher intensity medical office uses and lower intensity residential and office uses.

HOUSING ELEMENT

SCAG is responsible for allocating housing needs to each jurisdiction in its region. According to the General Plan, a local jurisdictions' fair-share of regional housing need (referred to as Regional Housing Needs Assessment [RHNA]) is the number of additional housing units that will need to be constructed in the jurisdiction in order to accommodate the forecast growth in the number of households, to replace expected demolitions and conversion of housing units to non-housing units, and to achieve a future vacancy rate that allows for healthy functioning of the housing market. Table 4.10-2, *Fair Share Housing Needs Allocation (2014-2021)*, identifies the City's fair share housing needs allocation for 2014-2021.

Table 4.10-2
Fair Share Housing Needs Allocation (2014-2021)

Income Category	Very-Low Income[1]	Low-Income	Moderate-Income	Above Moderate Income	Total Construction Needed
Number of Units	83	59	66	155	363
1. Regional share of Extremely Low-Income units is 42 dwelling units (assumed 50% of the Very Low-Income units)					
Source: City of Orange, *2014-2021 Housing Element*, adopted January 14, 2014.					

The Housing Element assumes the following densities to accommodate construction that would be affordable to specific income levels by the State:

- Very Low- and Low-Income: 30 dwelling units per acre minimum
- Moderate-Income: 11-30 dwelling units per acre minimum
- Above Moderate-Income: Up to 11 dwelling units per acre

State Government Code Section 65583.2(c)(3)(B)(iv) allows jurisdictions in metropolitan counties, such as Orange, to include sites with a minimum density of 30 units per acre and large enough to accommodate 16 dwelling units per site as appropriate sites to accommodate the jurisdictions' Lower Income households. The General Plan includes five mixed-use land use designations. The Urban Mixed-Use (UMU) designation is the only land use designation with a minimum density of 30 dwelling units per acre.

The project site is designated NMIX allowing for a maximum of 24 units per acre. Thus, under the existing land use designation, the site is not identified by the Housing Element as a site suitable to accommodate Lower Income units; however, it would accommodate Moderate-Income units. Under the NMIX designation and maximum density of 24 units per acre, the 0.95-acre site would be able to accommodate 22 units. The project proposes a General Plan Amendment to

change the project site's designation from NMIX to CG and a Zone Change from NMU-24 to C-2. The proposed General Plan Amendment and Zone Change would remove the potential for the site to be developed with a mixed-use development of up to 22 dwelling units.

The Housing Element indicates the City is able to meet its RHNA allocation through residential projects "in the pipeline" (3,362 units)[1] and that vacant land and parcels with potential to be redeveloped with residential uses would provide additional opportunities for new housing units in Orange. According to Housing Element Table B-11, the City has a total capacity of 5,702 units, which exceeds the 2014-2021 RHNA need of 363 units by 5,339 units. Although the project would result in the conversion of land designated for mixed-use development to a non-residential land use designation, adequate land would be available for additional housing development to meet the City's RHNA need.

ORANGE MUNICIPAL CODE

Based on the *City of Orange Zoning Map* and as stated above, the project site is zoned NMU-24.[2] The NMU-24 zone allows for drive-thru restaurants; however, based on the City's goal to establish a pedestrian-oriented environment given the transit and pedestrian activity on Main Street, the zoning establishes special design requirements for fast food restaurants in the NMU-24 zone. These include, but are not limited to, placement of the drive thru lanes away from circulation routes necessary to access the property, parking areas, and pedestrian walkways; drive thru lanes not located adjacent to streets; buildings oriented towards the street with pedestrian connections to adjacent sidewalks and parking not allowed between the building and front property line; width and radius of the drive thru lane; distance of the drive thru from driveways and from the entrance of the drive thru to the menu board; separation of the drive thru lane by curbing and landscaping; placement and emphasis of pedestrian walkways; and loudspeaker system and menu board requirements.

The project would be consistent with several of the special design requirements including, but not limited to, placing the drive thru lane away from circulation routes, parking areas and pedestrian walkways, and not adjacent to streets; width of the drive thru lanes; provision of a queueing analysis to demonstrate adequate site operations; providing adequate distance from the site driveway and drive thru entrance; providing adequate distance from the drive thru entrance and menu board; menu board and loud speaker operation; enhanced pedestrian walkways; and adequate safety. To create a more pedestrian-oriented environment as envisioned with the NMU-24 zone, the project would develop two pedestrian walkways from Main Street (43 feet in length) and Almond Avenue (83 feet in length) to the restaurant building and install bicycle racks on-site to connect to the adjacent sidewalks and OCTA transit stops. Landscaping is also proposed along the site perimeter and along the existing sidewalks to create a more aesthetically appealing and spatial experience for pedestrians and bicyclists traveling within the site vicinity.

Although the project would comply with many of the special design requirements for fast food restaurants in the MNU-24 zone, the operational needs of the proposed Chick-fil-A are not in complete alignment with either the General Plan or zoning requirements for the site including placement of the building toward the street and parking areas between the building and front

1 City of Orange, *City of Orange 2014-2021 Housing Element*, Table B-3, adopted January 14, 2014.

2 City of Orange, *City of Orange Zoning Map*, March 16, 2016, https://www.cityoforange.org/DocumentCenter/View/626/Citywide-Zoning-Map-PDF, accessed May 24, 2018.

property line. Thus, the project proposes a Zone Change to revert to the site's previous zoning of C-2, which allows a broad range of commercial uses.

Based on the C-2 zoning, the project would be required to comply with development regulations detailed in the *City of Orange Municipal Code* (Municipal Code) Chapter 17.18, *Commercial Districts*. Development standards applicable to the proposed project are discussed below in Table 4.10-3, *City of Orange Zoning Code Consistency Analysis*.

Table 4.10-3
City of Orange Zoning Code Consistency Analysis

Development Standard	General Business (C-2) Zoning Requirement	Proposed Project	Does Project Satisfy Requirement?
Permitted Uses	Restaurants w/ drive-thru or take out window requires a Conditional Use Permit subject to special provisions in Municipal Code Section 17.18.070 (see Drive-Thru Windows, below).	Conditional Use Permit No. 3044-17 is requested as part of the proposed project to comply with C-2 zoning.	Yes
Maximum Intensity	1.0 Floor to Area Ratio	0.11 Floor to Area Ratio	Yes
Maximum Building Height	32 feet / two stories within 120 feet of a residential district 30 feet / two stories at all other locations	22 feet / one story	Yes
Minimum Setbacks	Front Yard: 10 feet	68 feet (from Main Street)	Yes
	Side Yard: 10 feet	83 feet and 3 inches (from Almond Avenue)	Yes
	Rear Yard: 0 feet	18 feet and 3 inches	Yes
Drive-Thru Windows	Drive-thru lanes shall not obstruct the circulation routes necessary for access to the property, parking areas (including backup area of parking spaces), and pedestrian walkways.	Access to the drive-thru lanes would be provided via the site entrance along Almond Avenue to the north and would exit along Main Street at the southeast corner of the site. The drive-thru lanes would wrap around the western and southern site perimeter and would not obstruct circulation routes for access, parking, and pedestrian walkways.	Yes
	Pedestrian walkways shall be emphasized by enriched paved or striping.	The preliminary landscape plan includes striping along pedestrian walkways.	Yes
	Drive-thru lanes shall be a minimum of 12 feet in width.	The two proposed drive-thru lanes would be 12 feet wide and would merge into one 12-foot wide lane.	Yes
	Any application for a drive-thru window shall include a parking or queuing study that is based on similar operations, addressing the anticipated traffic volumes and vehicular stacking needs of the proposed business.	As detailed in Section 4.16, *Transportation/Traffic*, a drive-thru lane queuing assessment was conducted based on sample surveys collected at five other Chick-fil-A locations in Orange County. Based on the sample surveys, it was concluded that the project's drive-thru storage for up to 17 vehicles would accommodate anticipated drive-thru operations throughout the day; refer to Appendix 8.7, *Traffic Impact Analysis and Circulation Plan*.	Yes

Table 4.10-3, continued

Development Standard	General Business (C-2) Zoning Requirement	Proposed Project	Does Project Satisfy Requirement?
	During the initial staff review, the City's Police Department shall review and approve the proposed drive-thru configuration to assure that public safety and security issues are adequately addressed.	As part of the site plan review process, the Orange Police Department would review the proposed site plan for public safety, emergency access, and security issues.	Yes
Division Wall Required	A masonry division wall shall be constructed on all property lines adjacent to any residential district. The division wall shall be six feet in height, as measured from the highest elevation of land contiguous to the wall, except in a required front yard, in a required exterior side yard for a corner, reverse corner or key lot, where the wall shall be limited to 42 inches in height.	No residential districts are located adjacent to the project site. However, existing concrete masonry unit walls are located along the site's southern and western boundary and separates the project from existing medical offices and a preschool to the south and west, respectively. The walls would remain unchanged at project completion.	Yes
Off-Street Parking (vehicles)	10 spaces/1,000 square feet gross floor area for first 4,000 square feet, then 14.2 spaces/1,000 square feet gross floor area above 4,000 square feet	The total building area is 4,563 square feet; thus, 48 parking spaces would be required. The project proposes 48 parking spaces, including one electric vehicle space and two ADA-compliant spaces.	Yes
Off-Street Parking (motorcycle/bicycle)	When 10 to 50 automobile spaces are required, 50 square feet of motorcycle parking area and one bicycle rack	A 90-square foot motorcycle parking area and one bicycle rack would be provided on-site.	Yes
Off-Street Parking (parking area dimensions)	Minimum 9 feet wide and 18 feet deep Where an open parking stall is adjacent to a wall, a 10-foot width is required	Each parking space would be 9 feet wide and 18 feet deep. No parking spots are proposed adjacent to walls.	Yes
Loading Areas	When 10 to 50 automobile spaces are required, a loading area 10 feet wide and 40 feet deep is required.	A 10-foot by 40-foot loading zone would be provided on-site.	Yes
Landscaping Setback Areas	Landscape the front yards of all buildings facing a street, entire setback area or ten feet minimum planter width, whichever is greater.	Landscaping is proposed along the front and side yards of the restaurant building facing Almond Avenue and Main Street, along the site perimeter, and within the parking areas. The project would also include a landmark feature as a large planter at the northeast corner of the site.	Yes
Parking Landscaping	All parking visible from public streets is required to be screened with five-gallon shrubs at three feet on center. Berms of three feet may be used if the landscape area is 20 feet wide or greater.	Shrubs and trees are proposed along the site perimeter along Almond Avenue and Main Street, within the parking area, and on parking lot berms.	Yes

Table 4.10-3, continued

Development Standard	General Business (C-2) Zoning Requirement	Proposed Project	Does Project Satisfy Requirement?
Trash Enclosure Landscaping	A minimum four-foot wide landscaped planter, clean inside dimension, shall be provided on at least two sides of all trash enclosures.	The trash enclosure located on the western end of the proposed restaurant facility would have tree and shrub landscaping on the western and southern ends (two sides).	Yes
On-site Landscaping	Trees are required throughout the project site within all parking areas and along all property lines, including side yards and backyards, where buildings are away from the property line. They need to be located randomly throughout the project site unless determined otherwise through site plan and design review. Larger tree specimens are encouraged to be used along the property's street frontage. Shrubs are encouraged throughout the project site within all parking areas, setbacks and around building footprints.	Trees and shrubs would be planted along Almond Avenue and Main Street and along the western and southern perimeters adjacent to the existing concrete masonry unit walls. Landscaping would also be provided within the parking areas, on berms, and surrounding the proposed restaurant structure. The project would also include a landmark feature as a large planter at the northeast corner of the site with 'City of Orange' lettering to promote community identity and provide a streetscape enhancement at the Main Street and Almond Avenue intersection.	Yes
Mechanical Equipment	All mechanical and air conditioning equipment shall be shielded and screened from view from adjacent streets and properties. The screening shall be integrated architecturally with the building. Ground-mounted equipment screening shall consist of a solid wall, solid fence, or sufficient landscaping. Otherwise, such equipment shall be enclosed in a building.	Exterior mechanical equipment would include an electrical transformer and the heating, ventilation, and air conditioning (HVAC) units. As indicated on Exhibit 2-3, *Site Plan*, the proposed transformer would be screened with ornamental landscaping. The HVAC units would be situated on the roof and would be screened via a parapet around all four sides of the building.	Yes
Trash Enclosure	All commercial developments shall provide trash collection areas adequately and conveniently placed throughout the development. Trash collection areas shall be screened from view on three sides by a six-foot-high masonry wall in accordance with Department of Public Works standards. A view obscuring self-latching gate shall be provided.	Trash cans would be conveniently placed within and outside the restaurant. The main trash enclosure with storage area would be located at the western end of the restaurant facility and would have two view obscuring self-latching gates. The trash enclosure with storage area would be screened from view on three sides by a six-foot masonry wall.	Yes
Signs	All signs shall comply with the requirements outlined in Municipal Code Chapter 17.36, *Sign Regulations*.	As part of the site plan review process, the City of Orange Planning Division would review all proposed signs for compliance with Municipal Code standards.	Yes

Source: City of Orange, City of Orange Municipal Code, amended January 30, 2018, Chapter 17.18, Commercial District.

As discussed in Table 4.10-3, with approval of the proposed Zone Change and Conditional Use Permit, the proposed project would be consistent with the development regulations for C-2 zoning. Thus, impacts in this regard are less than significant.

SOUTHWEST PROJECT AREA CONSISTENCY ANALYSIS

Per Municipal Code 17.18.240, *Southwest Redevelopment Project Area*, the project site located within the Southwest Project Area and is subject to compliance with the City of Orange Redevelopment Agency's *Design Standards for the Amendment to the Southwest Project Area* (Southwest Design Standards), adopted June 1988 and most recently amended in 2018. The Southwest Project Area encompasses approximately 458 acres in central Orange and is divided into the following three thematic districts: the State College, West Chapman, and South Main/La Veta Thematic Districts. The project site is located in the South Main/La Veta Thematic District, which has an urban contemporary theme.[3] The Southwest Design Standards include general design standards applicable to all development within the Southwest Project Area and specific standards for each thematic district. Table 4.10-4, *Southwest Project Area Design Standards Consistency Analysis*, analyzes the proposed project features to determine consistency with applicable Southwest Design Standards.

Table 4.10-4
Southwest Project Area Design Standards Consistency Analysis

Category	Southwest Project Area Design Standard	Proposed Project	Is the Project Consistent?
General Design Standards			
Small Scale Buildings	Use Distinctive Massing	The project would be designed with various architectural building elements at a maximum height of approximately 22 feet, including a brick veneer, dark bronze parapets, awnings and other metal storefront features, and "Powerwall White" stucco with a sand medium finish, along with restaurant identification signage; refer to Exhibits 2-5a and 2-5b.	Yes
	Use Intimate Scale	Windows, doors, and decorative trim outside the proposed building, including brick veneer, dark bronze parapets, and awnings would emphasize intimate and pedestrian scale.	Yes
	Limit Visual Impression of Height	The project building would have a maximum building height of 22 feet, consistent with the proposed C-2 zoning.	Yes
	Design for Public View	The proposed building would be designed for public view with landscaping and screening along the site and building perimeters and throughout the parking area. Trash collection would also be screened from public view.	Yes

3 City of Orange Redevelopment Agency, *Design Standards for the Amendment to the Southwest Project Area*, June 1988, amended September 10, 2013 and March 13, 2018, https://www.cityoforange.org/DocumentCenter/View/6694/Southwest-Design-Standards---Amended-March-13-2018-1-of-65-PDF, accessed June 20, 2018.

Table 4.10-4, continued

Category	Southwest Project Area Design Standard	Proposed Project	Is the Project Consistent?
	Use Varied Textures	The proposed building would utilize varied textures, including brick, metal, and stucco.	Yes
	Use Related Colors	The building would feature related colors, such as brick, bronze, metal, and sand.	Yes
Service Systems	Screen Mechanical Equipment	Exterior mechanical equipment would include an electrical transformer and the heating, ventilation, and air conditioning (HVAC) units. As indicated on Exhibit 2-3, *Site Plan*, the proposed transformer would be screened with ornamental landscaping. The HVAC units would be situated on the roof and would be screened via a parapet around all four sides of the building.	Yes
	Screen Trash Enclosures	Trash collection on-site would be located within a trash enclosure/storage area adjacent to the proposed building. The trash enclosure would be gated and screened with landscaping.	Yes
	Underground or Screen Utility Lines and Equipment	All dry utilities, including electric, cable, telephone, and gas, would be underground on-site and connect to existing lines in West Almond Avenue.	Yes
Parking/Access	Design Parking Areas Appropriately	The proposed parking area would be typical of a drive-thru restaurant. Landscaping is proposed on parking berms and throughout the parking area. A pedestrian walkway would also be installed to provide safe access between the parking lot and the restaurant building.	Yes
Signage	Comply with City of Orange Sign Ordinance	The design of the proposed Chick-fil-A restaurant sign would comply with the City's Sign Ordinance requirements per Municipal Code Chapter 17.36, *Sign Regulations*, and be verified during the Design Review process.	Yes
South Main/La Veta Thematic District Design Standards			
Architectural Design	Mass and scale of new or remodeled buildings shall be consistent with relevant buildings in the project area	As stated above, the proposed building would be designed with various architectural building elements at a maximum height of approximately 22 feet, including a brick veneer, dark bronze parapets, awnings and other metal storefront features, and "Powerwall White" stucco with a sand medium finish, along with restaurant identification signage. Adjacent buildings in the project area include medical office buildings and single-family residences to the north, commercial buildings to the east, medical office buildings to the south, and a pre-school and multifamily residences to the	Yes

Table 4.10-4, continued

Category	Southwest Project Area Design Standard	Proposed Project	Is the Project Consistent?
		west. The buildings range in height from one- to two-stories and the proposed building would be consistent with these adjacent buildings.	
	Buildings of large mass should be designed to avoid a box-like appearance	The proposed building would include parapets, awnings, and metal storefront features as well as varied building materials and colors.	Yes
	Rhythm and scale of building components shall be consistent with relevant buildings in the project area	The proposed architectural elements would have a contemporary urban design and be consistent with relevant buildings in the project area.	Yes
	Texture and building facades, roof treatment, and colors shall be compatible with adjacent structures	As stated, the proposed project would reflect contemporary styling with brick veneer, bronze parapets, awnings, metal features, and varied building materials and accent colors to provide intimate pedestrian scale.	Yes
	Appropriate building materials: • Concrete, plaster, stucco building walls • Smooth finished wood as accents or wall surfacing • Brick, terra cotta, or cut/carved stone as accent • Concrete, slate or clay roof tiles • Concrete, plaster, wrought iron, brick, or cut/carved stone for fences, walls, and gates • Avoid reflective/tinted glass or rough sawn "natural" wood • Avoid corrugated metal/plastic, shingles, or white-colored roofing • Avoid chain-link fences, rough sawn wood, and untextured blocks for fences, walls, and gates	The proposed building would be constructed with brick veneer, bronze parapets, awnings and other metal storefront features, and "Powerwall White" stucco with a sand medium finish. No reflective/tinted glass, natural wood would be used. No chain-link fences, rough sawn wood, or untextured blocks for fences, walls, and gates would be utilized, and no corrugated metal/plastic, shingles, or white-colored roofing would be implemented.	Yes
Landscape Design Standards	Private Improvements: • Parking areas shall be screened from street frontages with a 10-foot landscaped area with a maximum 42-inch height on plant materials or other features (exclusive of trees) • Planting islands are required on either side of access driveways. Other features encouraged and/or allowed for access driveways include special paving and planted medians within the driveway. • Fully automatic low-volume irrigation design and equipment shall be	Landscaped areas of approximately 10.6 feet are proposed between the parking area and adjacent streets, Almond Avenue and Main Street. Plants proposed along the street frontages include upright rosemary, fountain grass, and agave shrubs lower than the maximum 42-inch plant height requirement. Strawberry trees are also proposed along the site perimeter. Planting islands consisting of agave and Marie's fescue shrubs and holly oaks are proposed on either side of the two access driveways along Main Street and Almond Avenue.	Yes

Table 4.10-4, continued

Category	Southwest Project Area Design Standard	Proposed Project	Is the Project Consistent?
	provided for all planted areas within an individual development site.	All plantings would be irrigated with bubblers and/or drip emitters connected to automatic remote control valves and tied into an automatic smart irrigation controller.	

Source: City of Orange Redevelopment Agency, *Design Standards for the Amendment to the Southwest Project Area*, June 1988, amended September 10, 2013 and March 13, 2018, https://www.cityoforange.org/DocumentCenter/View/6694/Southwest-Design-Standards---Amended-March-13-2018-1-of-65-PDF, accessed June 20, 2018.

As detailed above in Table 4.10-4, the proposed project would be consistent with the Southwest Design Standards and would be verified through the City's site plan and design review process. Impacts would be less than significant in this regard.

SENATE BILL 18 CONSISTENCY ANALYSIS

As stated above, the project proposes a General Plan Amendment and is therefore subject to Senate Bill 18 (SB 18) requirements. On May 28, 2018, a letter was sent to the Native American Heritage Commission (NAHC) requesting a Sacred Lands File search and a current SB 18 contact list for the vicinity of the proposed project. NAHC provided a response letter dated May 30, 2018 stating that the Sacred Lands File search resulted in negative results. The NAHC further recommended 18 tribal contacts representing tribal organizations be consulted about the project under SB 18. In compliance with SB 18, the City of Orange distributed tribal consultation letters on June 13, 2018. The Viejas Band of Kumeyaay Indians indicated that the project site has little cultural significance or ties to the Viejas Indians. The Gabrieleno Band of Mission Indians – Kizh Nation responded to the City's request for consultation and requested consultation pursuant to AB 52 in any ground disturbance conducted as part of the project; refer to Section 4.17, *Tribal Cultural Resources*. To date, no additional responses under SB 18 have been received.

Based on the analysis above, the proposed project would be consistent with the project site's General Plan designation and zoning requirements upon approval of the proposed General Plan Amendment and Zone Change and relevant General Plan policies with the exception of two policies pertaining to building placement and compact development. Additionally, the project would comply with the Southwest Design Standards and SB 18 requirements for tribal consultation. Overall, the project would be consistent with applicable land use plan, policy or regulation of an agency with jurisdiction over the project. Impacts would be less than significant in this regard.

Mitigation Measures: No mitigation measures are required.

c) Conflict with any applicable habitat conservation plan or natural community conservation plan?

No Impact. Refer to Response 4.4(f). Project implementation would not conflict with any applicable habitat conservation plan or natural community conservation plan. No impact would occur in this regard.

Mitigation Measures: No mitigation measures are required.

4.11 MINERAL RESOURCES

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the State?				✓
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?				✓

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?

No Impact. According to Appendix A, *Initial Study, Notice of Preparation (NOP)*, of the General Plan PEIR, the City's mineral resources are limited to sand and gravel resources ("aggregate") along the Santa Ana River and Santiago Creek. The project site is located within a developed, urbanized area of the City and is located approximately 0.76 mile to the east of the Santa Ana River and approximately one mile to the north of Santiago Creek. As such, no mineral resources are expected in the project area and project implementation would not result in the loss of availability of a known mineral resource that would be of value to the region and residents of the State. No impacts would occur.

Mitigation Measures: No mitigation measures are required.

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

No Impact. Refer to Response 4.11(a).

Mitigation Measures: No mitigation measures are required.

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4.12 NOISE

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

Sound is mechanical energy transmitted by pressure waves in a compressible medium such as air, and is characterized by both its amplitude and frequency (or pitch). The human ear does not hear all frequencies equally. In particular, the ear de-emphasizes low and very high frequencies. To better approximate the sensitivity of human hearing, the A-weighted decibel scale (dBA) has been developed. On this scale, the human range of hearing extends from approximately three dBA to around 140 dBA.

Noise is generally defined as unwanted or excessive sound, which can vary in intensity by over one million times within the range of human hearing; therefore, a logarithmic scale, known as the decibel scale (dB), is used to quantify sound intensity. Noise can be generated by a number of sources, including mobile sources such as automobiles, trucks, and airplanes, and stationary sources such as construction sites, machinery, and industrial operations. Noise generated by mobile sources typically attenuates (is reduced) at a rate between three dBA and 4.5 dBA per doubling of distance. The rate depends on the ground surface and the number or type of objects between the noise source and the receiver. Hard and flat surfaces, such as concrete or asphalt, have an attenuation rate of three dBA per doubling of distance. Soft surfaces, such as uneven or vegetated terrain, have an attenuation rate of about 4.5 dBA per doubling of distance. Noise generated by stationary sources typically attenuates at a rate between 6 dBA and about 7.5 dBA per doubling of distance.

There are a number of metrics used to characterize community noise exposure, which fluctuate constantly over time. One such metric, the equivalent sound level (L_{eq}), represents a constant sound that, over the specified period, has the same sound energy as the time-varying sound. Noise exposure over a longer period of time is often evaluated based on the Day-Night Sound Level (L_{dn}). This is a measure of 24-hour noise levels that incorporates a 10-dBA penalty for

sounds occurring between 10:00 p.m. and 7:00 a.m. The penalty is intended to reflect the increased human sensitivity to noises occurring during nighttime hours, particularly at times when people are sleeping and there are lower ambient noise conditions. Typical L_{dn} noise levels for light and medium density residential areas range from 55 dBA to 65 dBA.

REGULATORY FRAMEWORK

City of Orange

City of Orange General Plan

The *City of Orange General Plan* (General Plan) contains a Noise Element providing guidance for the control of noise to protect residents, workers, and visitors from potentially adverse noise impacts. Its primary goal is to regulate the long-term noise impacts to preserve acceptable noise environments for all types of land uses. This Element defers regulation of temporary, point-source noises such as construction activities to the City's Municipal Code Noise Ordinance. With regard to long-term noise impacts, the Element contains stated goals, policies, and implementation measures designed to guide City decision-making with respect to its purpose.

Goal 1.0 Promote a pattern of land uses compatible with current and future noise levels.

- Policy 1.1 Consider potential excessive noise levels when making land use planning decisions.
- Policy 1.2 Encourage new development projects to provide sufficient spatial buffers to separate excessive noise generating land uses and noise-sensitive land uses.
- Policy 1.3 Incorporate design features into residential and mixed-use projects that can be used to shield residents from excessive noise.
- Policy 1.4 Ensure that acceptable noise levels are maintained near noise-sensitive areas.
- Policy 1.5 Reduce impacts of high-noise activity centers located near residential areas.
- Policy 1.6 Require an acoustical study for proposed developments in areas where the existing and projected noise level exceeds or would exceed the maximum allowable levels identified in Table N-3. The acoustical study shall be performed in accordance with the requirements set forth within this Noise Element.

Goal 2.0 Minimize vehicular traffic noise in residential areas and near noise-sensitive land uses.

- Policy 2.1 Encourage noise-compatible land uses along existing and future roadways, highways, and freeways.
- Policy 2.2 Encourage coordinated site planning and traffic control measures that minimize traffic noise in noise-sensitive land use areas.

Policy 2.5 Work toward understanding and reducing traffic noise in residential neighborhoods with a focus on analyzing the effects of traffic noise exposure throughout the City.

Goal 7.0 Minimize construction, maintenance vehicle, and nuisance noise in residential areas and near noise-sensitive land uses.

Policy 7.2 Require developers and contractors to employ noise minimizing techniques during construction and maintenance operations.

Policy 7.3 Limit the hours of construction and maintenance operations located adjacent to noise-sensitive land uses.

The Noise Element utilizes an adopted noise and land use compatibility matrix based on the State's compatibility guidelines and modified to reflect City standards for residential and other areas.

City of Orange Municipal Code

Chapter 8.24 of the City of Orange Municipal Code (Municipal Code) contains noise control regulations that would have a limited application to the project's construction noise impacts, as the Municipal Code exempts construction activities from the chapter's provisions during daytime hours when these activities would occur. Noise associated with the maintenance of the property (e.g., landscaping, cleaning, minor repair work) would similarly be exempt during daytime hours. Noises from transportation sources traveling on roadways would be subject to the City's General Plan Noise Element.

8.24.050 – Exemptions from Chapter Provisions

The following activities shall be exempted from the provisions of this chapter:

E. Noise sources associated with construction, repair, remodeling, or grading of any real property, provided said activities take place between the hours of 7:00 a.m. and 8:00 p.m. on any day except for Sunday or a Federal holiday, or between the hours of 9:00 a.m. and 8:00 p.m. on Sunday or a Federal holiday. Noise generated outside of the hours specified are subject to the noise standards identified in Table 8.24.040.

I. Noise sources associated with the maintenance of real property, provided such activities take place between the hours of 7:00 a.m. and 8:00 p.m. on any day except Sunday or a Federal holiday, or between the hours of 9:00 a.m. and 8:00 p.m. on Sunday or a Federal holiday. Operation of leaf blowers are regulated under Municipal Code Chapter 8.26.

L. Mobile noise sources including but not limited to operational noise from trains, or automobiles or trucks traveling on roadways. Transportation noise as related to noise/land use compatibility is subject to the City's General Plan Noise Element.

As referenced by Section 8.24.050(e) above, construction activities occurring outside of the provided hours would be regulated by the standards identified in Table 8.24.040 of the Municipal Code as presented below in Table 4.12-1, *City of Orange Exterior Noise Standards*.

Table 4.12-1
City of Orange Exterior Noise Standards

Type	Noise Level	Time Period
Hourly Average	55 dB(A)	7:00 a.m. – 10:00 p.m.
	50 dB(A)	10:00 p.m. – 7:00 a.m.
Maximum Level	70 dB(A)	7:00 a.m. – 10:00 p.m.
	65 dB(A)	10:00 p.m. – 7:00 a.m.
Source: City of Orange Municipal Code, Section 8.24.040.		

EXISTING CONDITIONS

Stationary Sources

The project area is located within an urbanized area. The primary sources of stationary noise in the project vicinity are urban-related activities (i.e., mechanical equipment, commercial areas, parking areas, and pedestrians). The noise associated with these sources may represent a single-event noise occurrence, short-term, or long-term/continuous noise.

Mobile Sources

The majority of the existing noise in the project area is generated from vehicle sources along Main Street and Almond Avenue. As shown in Table 4.12-2, *Existing Traffic Noise Levels*, the highest mobile noise sources adjacent to the project site were modeled at 65.4 dBA along Main Street between Almond Avenue and Palmyra Avenue.

Table 4.12-2
Existing Traffic Noise Levels

Roadway Segment	Existing Conditions				
	ADT	dBA @ 100 Feet from Roadway Centerline	Distance from Roadway Centerline to: (Feet)		
			60 CNEL Noise Contour	65 CNEL Noise Contour	70 CNEL Noise Contour
Main Street					
Chapman Avenue to Almond Avenue	28,698	67.4	673	213	67
Almond Avenue to Palmyra Avenue	28,578	67.5	669	212	67
Almond Avenue					
Feldner Road to Main Street	2,453	54.1	30	10	3
Main Street to Batavia Street	7,093	57.1	61	19	6
Notes: ADT = average daily trips; dBA = A-weighted decibels; CNEL = community noise equivalent level.					
Source: Based on traffic data within the Traffic Impact Analysis, prepare by Linscott Law & Greenspan, April 2018.					

Mobile source noise was modeled using the Federal Highway Administration's Highway Noise Prediction Model (FHWA RD-77-108), which incorporates several roadway and site parameters. The model does not account for ambient noise levels. Noise projections are based on modeled vehicular traffic as derived from the *Chick-fil-A Main Street Project Traffic Impact Analysis* (Traffic Impact Analysis) prepared by Linscott Law & Greenspan (dated April 10, 2018); refer to Appendix

8.7, *Traffic Impact Analysis and Circulation Plan*. A 40-mile per hour average vehicle speed along Main Street, a 30-mile per hour average vehicle speed along Main Street (Feldner Road to Main Street), and a 25-mile per hour average vehicle speed along Main Street (Main Street to Batavia Street) were assumed for existing conditions based on empirical observations and posted maximum speeds. Average daily traffic estimates were obtained from the Traffic Impact Analysis.

Noise Measurements

In order to quantify existing ambient noise levels in the project area (vicinity of the project site), four noise measurements were taken on June 19, 2018; refer to Table 4.12-3, *Noise Measurements*. The noise measurement sites were representative of typical existing noise exposure within and immediately adjacent to the project site. Ten-minute measurements were taken, between 9:48 a.m. and 10:30 a.m. Short-term (L_{eq}) measurements are considered representative of the noise levels throughout the day.

Table 4.12-3
Noise Measurements

Site No.	Location	L_{eq} (dBA)	L_{min} (dBA)	L_{max} (dBA)	Peak (dBA)	Time
1	Near an apartment (1514 West Almond Avenue), adjacent to alleyway, and off Almond Avenue and McRoy Road	58.4	50.6	76.0	90.6	09:48 a.m.
2	Across project site, in front of a single-story home (1433 West Almond Avenue)	59.8	49.8	76.1	98.0	10:02 a.m.
3	Western portion of the project site adjacent to the wall of the preschool building	55.0	46.5	66.8	89.5	10:15 a.m.
4	On Almond Avenue, across Main Street from project site, in front of a house (1318 West Almond Avenue)	58.1	47.4	72.4	91.7	10:30 a.m.

Source: Michael Baker International, June 19, 2018.

- Measurement Site 1 was located near an apartment (1514 West Almond Avenue), adjacent to the alleyway, and along Almond Avenue and McRoy Road. Sources of peak noise included construction noise, traffic on Almond Avenue, and an overflying plane. The noise level monitored at Site 1 was 58.4 dBA L_{eq}.

- Measurement Site 2 was located across the project site and in front of a single-story home (1433 West Almond Avenue). Source of peak noise included construction and street traffic on Almond Avenue. The noise level monitored at Site 2 was 59.8 dBA L_{eq}.

- Measurement Site 3 was located on the western portion of the project site adjacent to the wall of the preschool building. Sources of peak noise included construction, children playing outside, street traffic on Almond Avenue, and an overflying plane. The noise level monitored at Site 3 was 55.0 dBA L_{eq}.

- Measurement Site 4 was located on Almond Avenue, across Main Street from the project site, and in front of a house (1318 West Almond Avenue). Sources of peak noise included street traffic on Almond Avenue and Main Street. The noise level monitored at Site 4 was 58.1 dBA L_{eq}.

Meteorological conditions were clear skies, warm temperatures, with light wind speeds (0 to 5 miles per hour), and low humidity. Noise monitoring equipment used for the ambient noise survey consisted of a Brüel & Kjær Hand-held Analyzer Type 2250 equipped with a Type 4189 pre-polarized microphone. The monitoring equipment complies with applicable requirements of the American National Standards Institute (ANSI) for sound level meters. The results of the field measurements are included in Appendix 8.6, *Noise Data*.

a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Less Than Significant Impact With Mitigation Incorporated. It is difficult to specify noise levels that are generally acceptable to everyone; noise that is considered a nuisance to one person may be unnoticed by another. Standards may be based on documented complaints in response to documented noise levels, or based on studies of the ability of people to sleep, talk, or work under various noise conditions.

SHORT-TERM CONSTRUCTION

Construction of the proposed project would occur over approximately 6 months and would include demolition, grading, paving, and building construction. Ground-borne noise and other types of construction-related noise impacts would typically occur during the initial construction phases. These phases of construction have the potential to create the highest levels of noise. Typical noise levels generated by construction equipment are shown in Table 4.12-4, *Maximum Noise Levels Generated by Construction Equipment*. It should be noted that the noise levels identified in Table 4.12-4 are maximum sound levels (L_{max}), which are the highest individual sound occurring at an individual time period.

It is anticipated that construction activities would occur between the hours of 7:00 a.m. and 8:00 p.m. on any day except for Sunday or a Federal holiday, or between the hours of 9:00 a.m. and 8:00 p.m. on Sunday or a Federal holiday. All construction activities would be required to comply with the current City's General Plan, Municipal Code Chapter 8.24, and applicable State and Federal regulations. Construction would occur throughout the project site and would not be concentrated or confined in the area directly adjacent to sensitive receptors. It should be noted that the noise levels depicted in Table 4.12-4 are maximum noise levels, which would occur sporadically when construction equipment is operated in proximity to sensitive receptors. Given the sporadic and variable nature of proposed project construction and the implementation of noise limits specified in the Municipal Code, noise impacts would be reduced to a less than significant level. Additionally, to further reduce the potential for noise impacts and nuisances, Mitigation Measure NOI-1 would be implemented to incorporate best management practices during construction. Implementation of Mitigation Measure NOI-1 would further minimize impacts from construction noise as it requires construction equipment to be equipped with properly operating and maintained mufflers and other State required noise attenuation devices. Thus, a less than significant noise impact would result from construction activities.

Table 4.12-4
Maximum Noise Levels Generated by Construction Equipment

Type of Equipment	Acoustical Use Factor[1]	L_{max} at 50 Feet (dBA)
Concrete Saw	20	90
Crane	16	81
Concrete Mixer Truck	40	79
Backhoe	40	78
Dozer	40	82
Excavator	40	81
Forklift	40	78
Paver	50	77
Pile Driver (impact)	20	101
Pile Driver (sonic)	20	96
Roller	20	80
Tractor	40	84
Water Truck	40	80
Grader	40	85
General Industrial Equipment	50	85

Note:

1 Acoustical use factor (percent): Estimates the fraction of time each piece of construction equipment is operating at full power (i.e., its loudest condition) during a construction operation.

Source: Federal Highway Administration, *Roadway Construction Noise Model (FHWA-HEP-05-054)*, dated January 2006.

LONG-TERM OPERATIONAL NOISE IMPACTS

Off-Site Mobile Noise

Future development generated by the proposed project would result in additional traffic on adjacent roadways, thereby increasing vehicular noise in the vicinity of existing and proposed land uses. Based on the Traffic Impact Analysis, the proposed project is projected to generate a total of approximately 1,612 trips per day, which includes approximately 93 a.m. peak hour trips and approximately 74 p.m. peak hour trips. The "Future Without Project" and "Future With Project" scenarios are compared in Table 4.12-5, *Future Traffic Noise Levels*. As depicted in Table 4.12-5, under the "Future Without Project" scenario, noise levels would range from approximately 54.2 dBA to 67.7 dBA, with the highest noise levels occurring along Main Street. The "Future With Project" scenario noise levels would range from approximately 55.8 dBA to 67.8 dBA, with the highest noise levels also occurring along Main Street.

Table 4.12-5 also shows the difference between the "Future Without Project" scenario and the "Future With Project" scenario. The noise levels would result in a maximum increase of 1.6 dBA as a result of the proposed project. This increase in noise would occur along Almond Avenue (Feldner Road to Main Street). Since the proposed project would not significantly increase noise levels along the roadway segments analyzed (i.e., noise increase would be less than 3.0 dBA), a less than significant impact would occur.

Table 4.12-5
Future Traffic Noise Levels

Roadway Segment	Future Without Project					Future With Project					Difference in dBA @ 100 feet from Roadway
	ADT	dBA @ 100 Feet from Roadway Centerline	Distance from Roadway Centerline to: (Feet) 60 CNEL Noise Contour	65 CNEL Noise Contour	70 CNEL Noise Contour	ADT	dBA @ 100 Feet from Roadway Centerline	Distance from Roadway Centerline to: (Feet) 60 CNEL Noise Contour	65 CNEL Noise Contour	70 CNEL Noise Contour	
Main Street											
Chapman Avenue to Almond Avenue	30,676	67.7	720	228	72	31,442	67.8	736	233	74	0.1
Almond Avenue to Palmyra Avenue	30,413	67.7	712	225	71	31,058	67.8	727	230	73	0.1
Almond Avenue											
Feldner Road to Main Street	2,502	54.2	31	10	3	3,671	55.8	45	14	5	1.6
Main Street to Batavia Street	7,235	57.2	62	20	6	7,396	57.3	64	20	6	0.1

Notes: ADT = average daily trips; dBA = A-weighted decibels; CNEL = community noise equivalent level

Source: Based on traffic data within the Traffic Impact Analysis, prepare by Linscott Law & Greenspan, April 2018.

Cumulative Mobile Source Impacts

A project's contribution to a cumulative traffic noise increase would be considered significant when the combined effect exceeds perception level (i.e., auditory level increase) threshold. The combined effect compares the "cumulative with project" condition to "existing" conditions. This comparison accounts for the traffic noise increase generated by a project combined with the traffic noise increase generated by projects in the cumulative project list. The following criteria have been utilized to evaluate the combined effect of the cumulative noise increase.

- *Combined Effect*. The cumulative with project noise level ("Future With Project") would cause a significant cumulative impact if a 3.0 dB increase over existing conditions occurs and the resulting noise level exceeds the applicable exterior standard at a sensitive use. Although there may be a significant noise increase due to the proposed project in combination with other related projects (combined effects), it must also be demonstrated that the project has an incremental effect. In other words, a significant portion of the noise increase must be due to the proposed project. The following criteria have been utilized to evaluate the incremental effect of the cumulative noise increase.

- *Incremental Effects*. The "Future With Project" causes a 1.0 dBA increase in noise over the "Future Without Project" noise level.

A significant impact would result only if both the combined and incremental effects criteria have been exceeded. Noise by definition is a localized phenomenon, and reduces as distance from the source increases. Consequently, only the proposed project and growth due to occur in the project site's general vicinity would contribute to cumulative noise impacts. Table 4.12-6, *Cumulative Noise Scenario*, lists the traffic noise effects along roadway segments in the project vicinity for "Existing," "Future Without Project," and "Future With Project," conditions, including incremental and net cumulative impacts.

As indicated in Table 4.12-6, the Incremental Effects criterion of 1.0 dBA is exceeded along Almond Avenue (Feldner Road to Main Street). However, the Combined Effects criterion of 3.0 dBA would not be exceeded along any of the segments. Thus, both the combined and incremental effects criteria have not been exceeded and none of the roadway segments would have a significant cumulative noise increase. Therefore, the proposed project, in combination with cumulative background traffic noise levels, would result in less than significant impacts.

Table 4.12-6
Cumulative Noise Scenario

Roadway Segment	Existing	Future Without Project	Future With Project	Combined Effects	Incremental Effects	Cumulatively Significant Impact?
	dBA @ 100 Feet from Roadway Centerline	dBA @ 100 Feet from Roadway Centerline	dBA @ 100 Feet from Roadway Centerline	Difference In dBA Between Existing and Future With Project	Difference In dBA Between Future Without Project and Future With Project	
Main Street						
Chapman Avenue to Almond Avenue	67.4	67.7	67.8	0.4	0.1	**No**
Almond Avenue to Palmyra Avenue	67.5	67.7	67.8	0.3	0.1	**No**
Almond Avenue						
Feldner Road to Main Street	54.1	54.2	55.8	1.7	1.6	**No**
Main Street to Batavia Street	57.1	57.2	57.3	0.2	0.1	**No**

Notes: ADT = average daily trips; dBA = A-weighted decibels; CNEL = community noise equivalent level

Source: Based on traffic data within the Traffic Impact Analysis, prepare by Linscott Law & Greenspan, April 2018.

On-Site Mobile Noise

The proposed project includes a Chick-fil-A restaurant, two-lane drive-thru, and 48 vehicle parking spaces. The project site is located in a mostly developed commercial and residential area. Further, the project would generate 1,612 daily trips, and would be similar to the noise environment in the surrounding area (commercial and residential). Therefore, on-site traffic noise would not generate substantial noise levels in exceedance of City Standards (Table 4.12-1), and a less than significant impact would occur.

Stationary Noise Impacts

As stated above, the project proposes a commercial fast food restaurant facility. Noise that is typical of commercial areas includes mechanical equipment, slow moving trucks, parking activities, pedestrian activity, and drive-thru operations; typical of the surrounding commercial and residential area. Noise impacts to surrounding uses associated with implementation of the proposed project are anticipated to be less than significant.

- *Mechanical Equipment*. Typically, mechanical equipment noise is 55 dBA at 50 feet from the source. The nearest sensitive receptor is a residential use located approximately 83 feet to the north of the project site boundary.[1] Heating Ventilation and Air Conditioning (HVAC) units could be included on the roof of the restaurant building, at the closest possible distance of approximately 186 feet. At this distance, potential noise from HVAC units would not be audible above existing ambient noise levels. Further, noise impacts from these sources would be infrequent and intermittent. Therefore, the nearest receptor (residential uses) would not be directly exposed to substantial noise from on-site mechanical equipment. Impacts in this regard would be less than significant.

- *Slow-Moving Trucks (Deliveries)*. The proposed project includes a commercial restaurant development that would necessitate occasional truck delivery operations. Typically, a medium 2-axle truck used to make deliveries can generate a maximum noise level of 75 dBA at a distance of 50 feet. These are levels generated by a truck that is operated by an experienced driver with typically applied accelerations. Higher noise levels may be generated by the excessive application of power. Lower levels may be achieved, but would not be considered representative of a nominal truck operation. Truck deliveries to the project site would generally consist of small trucks or vans and would not generate excessive noise levels over an extended period of time. Impacts resulting from truck delivery activities would be less than significant.

- *Parking Lot Activities*. Traffic associated with parking lots is typically not of sufficient volume to exceed community noise standards, which are based on a time-averaged scale such as the CNEL scale. However, the instantaneous maximum sound levels generated by a car door slamming, engine starting up, and car pass-bys may be an annoyance to adjacent noise-sensitive receptors. Estimates of the maximum noise levels associated with some parking lot activities are presented in Table 4.12-7, *Typical Maximum Noise Levels Generated by Parking Lots*. Conversations in parking areas may also be an

1 It is acknowledged that a preschool facility is situated approximately 18 feet west of the project site. However, due to the nature of this use and the hours of operation, this facility is not considered noise sensitive.

annoyance to adjacent sensitive receptors. Sound levels of speech typically range from 33 dBA at 48 feet for normal speech to 50 dBA at 50 feet for very loud speech.

Table 4.12-7
Typical Maximum Noise Levels Generated by Parking Lots

Noise Source	Maximum Noise Levels at 50 Feet from Source
Car door slamming	63 dBA L_{eq}
Car starting	60 dBA L_{eq}
Car idling	61 dBA L_{eq}

It should be noted that parking lot noise are instantaneous noise levels compared to noise standards in the CNEL scale, which are averaged over time. As a result, actual noise levels over time resulting from parking lot activities would be far lower than what is identified in Table 4.12-7. Parking lot noise would occur within the surface parking lot on-site. Parking lot noise would be consistent with the existing noise on-site and would be partially masked by background noise from traffic along Main Street and Almond Avenue. Noise associated with parking lot activities is not anticipated to exceed the City's Noise Standards (Table 4.12-1) during operation. Therefore, noise impacts from parking lots would be less than significant.

- *Drive-Thru Operations*. The project proposes a restaurant with a two-lane drive-thru. Noise levels from drive-thru operations would be primarily from the drive-thru speakerphones, located on the southwestern portion of the project site, oriented towards the southwest, and abutting neighborhood and school. The typical noise level associated with active drive-thru operations (including the drive-thru speakerphones) is 68.2 dBA L_{eq} at a distance of 40 feet.[2] As previously noted, the closest sensitive receptors to the project site are residential uses located approximately 83 feet north of the project site boundary, which would be approximately 206 feet from the proposed drive-thru speakerphones. At a distance of 206 feet, noise from drive-thru operations would be approximately 54 dBA $L_{eq,}$ which is below the City's 55 dBA noise standard for residential uses (from 7:00 a.m. to 10:00 p.m.). It should be noted that noise from drive-thru operations at the project site would also be largely masked by traffic noise along Almond Avenue and Main Street. As indicated in Table 4.12-2, existing noise levels along Almond Avenue range from 54.1 dBA to 57.1 dBA and existing noise levels along Main Street range from 67.4 dBA to 67.5 dBA. Thus, traffic noise levels along Almond Avenue and Main Street would be greater than the drive-thru reference noise level of 54 dBA at a distance of 206 feet. It is noted that that a preschool facility is situated approximately 18 feet west of the project site. However, due to the nature of this use and the hours of operation, this facility is not considered noise sensitive. Therefore, impacts would be less than significant in this regard.

2 Michael Baker International, *Castaic Lake Water Agency Acoustical Study,* June 17, 2010.

Mitigation Measures:

NOI-1 Prior to the issuance of a grading permit, the Applicant shall demonstrate, to the satisfaction of the City of Orange Public Works Department that the project complies with the following:

- Construction contracts specify that all construction equipment, fixed or mobile, shall be equipped with properly operating and maintained mufflers and other state required noise attenuation devices.
- Construction haul routes shall be designed to avoid noise sensitive uses (e.g., residences, convalescent homes, etc.), to the extent feasible.
- During construction, stationary construction equipment shall be placed such that emitted noise is directed away from sensitive noise receivers.
- Construction activities shall not take place outside of the allowable hours specified by the City of Orange Municipal Code Section 8.24.050 (7:00 a.m. and 8:00 p.m. on any day except for Sunday or a Federal holiday, or between the hours of 9:00 a.m. and 8:00 p.m. on Sunday or a Federal holiday). Noise generated outside of the hours specified are subject to the noise standards identified in Municipal Code Section 8.24.040.

b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

Less Than Significant Impact. Project construction can generate varying degrees of groundborne vibration, depending on the construction procedure and the construction equipment used. Operation of construction equipment generates vibrations that spread through the ground and diminish in amplitude with distance from the source. The effect on buildings located in the vicinity of the construction site often varies depending on soil type, ground strata, and construction characteristics of the receiver building(s). The results from vibration can range from no perceptible effects at the lowest vibration levels, to low rumbling sounds and perceptible vibration at moderate levels, to slight damage at the highest levels. Groundborne vibrations from construction activities rarely reach levels that damage structures.

The Federal Transit Administration (FTA) has published standard vibration velocities for construction equipment operations. In general, the FTA architectural damage criterion for continuous vibrations (i.e., 0.20 inch/second) appears to be conservative. The types of construction vibration impact include human annoyance and building damage. Human annoyance occurs when construction vibration rises significantly above the threshold of human perception for extended periods of time. Building damage can be cosmetic or structural. Typical vibration produced by construction equipment is illustrated in Table 4.12-8, *Typical Vibration Levels for Construction Equipment*.

Table 4.12-8
Typical Vibration Levels for Construction Equipment

Equipment	Approximate peak particle velocity at 18 feet (inches/second)	Approximate peak particle velocity at 25 feet (inches/second)	Approximate peak particle velocity at 50 feet (inches/second)	Approximate peak particle velocity at 100 feet (inches/second)
Large bulldozer	0.146	0.089	0.031	0.011
Loaded trucks	0.124	0.076	0.027	0.010
Small bulldozer	0.005	0.003	0.001	0.000
Jackhammer	0.057	0.035	0.012	0.004

Notes:

1. Federal Transit Administration, *Transit Noise and Vibration Impact Assessment Guidelines*, May 2006. Table 12-2.

2. Calculated using the following formula:

$PPV_{equip} = PPV_{ref} \times (25/D)^{1.5}$

where: PPV (equip) = the peak particle velocity in inch per second of the equipment adjusted for the distance

PPV (ref) = the reference vibration level in inch per second from Table 12-2 of the FTA *Transit Noise and Vibration Impact Assessment Guidelines*

D = the distance from the equipment to the receiver

Source: Federal Transit Administration, Transit Noise and Vibration Impact Assessment Guidelines, May 2006.

Ground-borne vibration decreases rapidly with distance. As indicated in Table 4.12-8, based on the FTA data, vibration velocities from typical heavy construction equipment operation that would be used during project construction range from 0.003 to 0.089 in/sec peak particle velocity (PPV) at 25 feet from the source of activity. The nearest structure (a preschool facility) is located approximately 18 feet west of the project site boundary. The highest amount of ground-borne vibration would be generated during grading activities on-site. As noted in Table 4.12-8, vibration at 18 feet would range from 0.005 to 0.146 PPV. Therefore, vibration from construction activities experienced at the closest structure would be below the 0.20 inch-per-second PPV significance threshold. Because the project area is relatively flat, grading activities would be minimal and short in duration. Therefore, vibration impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

Less Than Significant Impact With Mitigation Incorporated. Refer to Response 4.12(a), "Long-Term Operational Impacts."

Mitigation Measures: Refer to Mitigation Measure NOI-1.

d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

Less Than Significant Impact With Mitigation Incorporated. Refer to Responses 4.12(a) and 4.12(b).

Mitigation Measures: Refer to Mitigation Measure NOI-1.

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

No Impact. The nearest airport to the project site is the John Wayne Airport located approximately seven miles to the south. The proposed project is not located within an airport land use plan. Therefore, project implementation would not expose people residing or working in the project area to excessive noise levels associated with aircraft. No impacts would occur in this regard.

Mitigation Measures: No mitigation measures are required.

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

No Impact. The project site is not located within the vicinity of a private airstrip or related facilities. Therefore, no impacts would occur in this regard.

Mitigation Measures: No mitigation measures are required.

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4.13 POPULATION AND HOUSING

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

a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

Less Than Significant Impact. A project could induce population growth in an area either directly, through the development of new residences or businesses, or indirectly, through the extension of roads or other infrastructure. As described in Section 2.0, *Project Description*, the project involves the demolition of an existing 8,579 square foot restaurant structure and the construction of a new 4,563 square-foot restaurant with a two-lane drive-thru. Implementation of the proposed project is not anticipated to result in a substantial increase in population (indirectly as a result of employees generated) compared to existing conditions.

Although an uncertainty exists regarding the number of new employees, who may choose to relocate to the area, a conservative analysis of impacts associated with indirect population growth can be provided. Upon project buildout, the Chick-fil-A restaurant would employ approximately 80 full- and part-time employees, with anywhere from 12 to 15 employees on shift at any one time. For analysis purposes, it is assumed that 100 percent of the project's new employees would relocate to the City of Orange. Based on 80 new employees relocating to the City and an average household size of 3.07[1], project implementation would result in a potential population increase of approximately 246 persons. The potential population growth generated by the project would increase the City population of 141,952[2] persons to 142,198 persons, an increase of approximately 0.2 percent. It should be noted that due to the nature of the proposed use (drive-thru restaurant), it is not likely that employees of the restaurant would relocate to the City, but rather the new jobs associated with the project would provide employment opportunities for people already residing within the City.

Potential population growth impacts are also assessed based on a project's consistency with adopted plans that have addressed growth management from a local and regional standpoint. The Southern California Association of Governments (SCAG) growth forecasts estimate the City's population to reach 151,400 persons by 2040, representing a total increase of 12,900 persons

1 State of California, Department of Finance, E-5 Population and Housing Estimates for Cities, Counties and the State – January 1, 2011 – 2018, May 2018.

2 State of California, Department of Finance, E-4 Population Estimates for Cities, Counties, and the State, 2011 – 2018, with 2010 Census Benchmark, May 2018.

between 2012 and 2040.[3] The project's anticipated employee population (80 persons) represents 0.5 percent of the 2040 population anticipated for the City. SCAG's regional growth projections are based upon long-range development assumptions (i.e., General Plans) of the relevant jurisdiction.

Additionally, the project proposes a General Plan Amendment to change the designation from Neighborhood Mixed Use (NMIX) to General Commercial (CG). The NMIX minimum Floor to Area Ratio (FAR) is intended to support higher intensity development consistent with an urban mixed-use district. The project proposes to re-designate the project site to CG. Under the CG designation, the allowed FAR and land use intensity would be reduced. Thus, the potential for population growth at the project site would be less than anticipated under the current zoning. The project would not result in growth significantly exceeding local and/or regional population projections and is not considered substantial given the amended CG designation for the site. Therefore, implementation of the proposed project would not induce substantial population growth within the City either directly or indirectly, resulting in less than significant impacts.

Mitigation Measures: No mitigation measures are required.

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

No Impact. The project site currently consists of an 8,579 square foot commercial restaurant structure, which would be replaced with a new 4,563 square-foot restaurant with a two-lane drive-thru. No housing exists on-site. Therefore, the project implementation would not displace any existing housing or people. No impact would result in this regard.

Mitigation Measures: No mitigation measures are required.

c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

No Impact. Refer to Response 4.13(b).

Mitigation Measures: No mitigation measures are required.

3 Southern California Association of Governments, *2016-2040 RTP/SCS Final Growth Forecasts by Jurisdiction*, https://www.scag.ca.gov/Documents/2016_2040RTPSCS_FinalGrowthForecastbyJurisdiction.pdf, accessed September 10, 2018.

4.14 PUBLIC SERVICES

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
1) Fire protection?			✓	
2) Police protection?			✓	
3) Schools?			✓	
4) Parks?			✓	
5) Other public facilities?			✓	

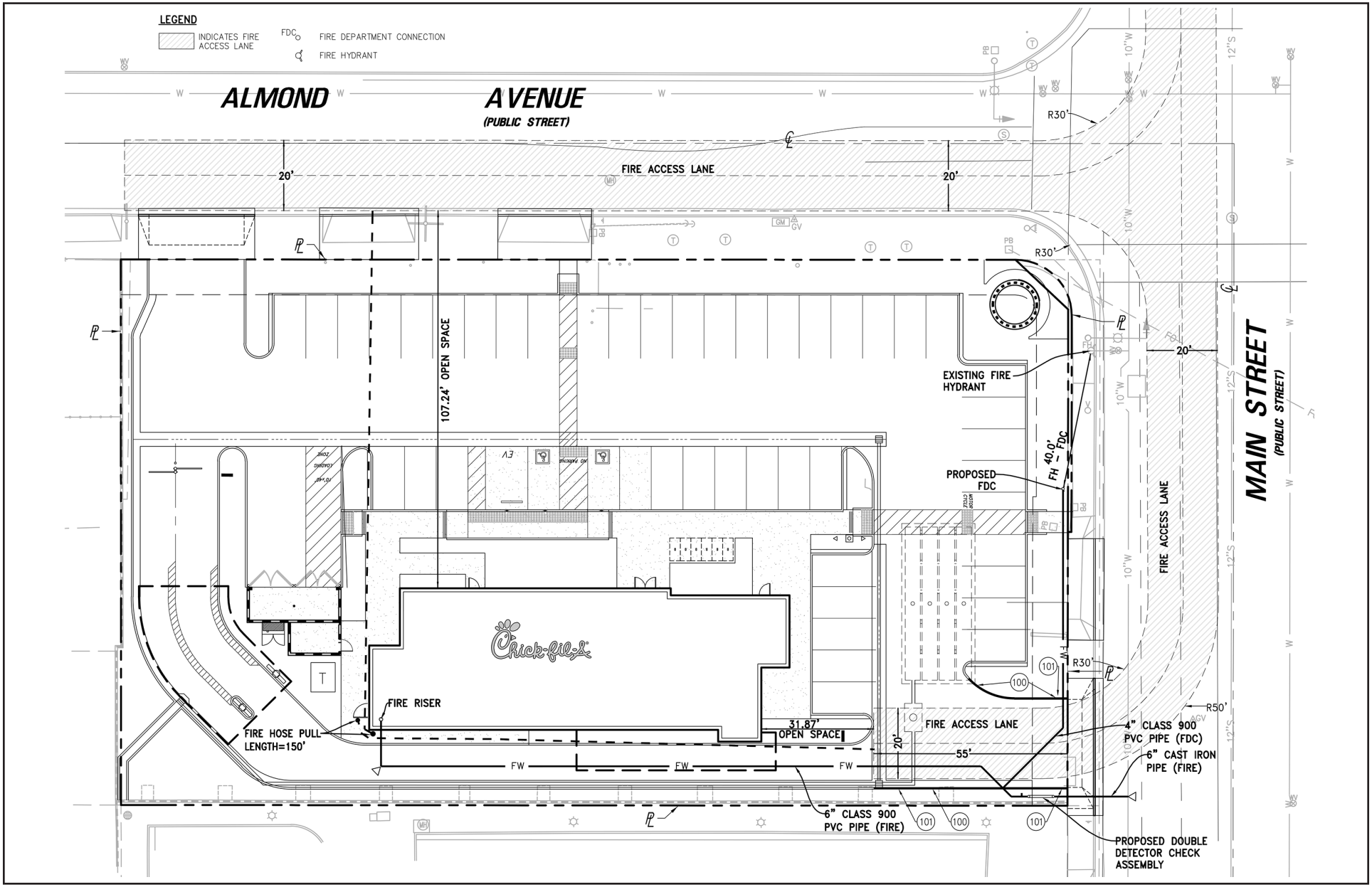
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

1) Fire protection?

Less Than Significant Impact. The City of Orange Fire Department provides fire and emergency response to the City, including the project site. Eight fire stations serve the City of Orange, and the nearest station (Station 5 at 1345 West Maple Avenue) is approximately 0.25-mile north of the project site.[1] The proposed project would result in the demolition of an existing structure and the construction of a new restaurant with a two-lane drive-thru. The proposed project is not expected to result in the construction of new or physically altered fire facilities. As noted above, there are several fire stations located within City boundaries. In addition, the proposed project would be subject to City site/building plan review to ensure that the project meets fire safety requirements. The proposed project would include features such as fire-resistant construction materials, fire alarm/sprinkler systems, and hydrants. Additionally, the project would provide adequate emergency access for fire vehicles with access via South Main Street to a 20-foot wide fire access lane on-site located at the exit of the drive-thru to avoid potential blockage by queued vehicles; refer to Exhibit 4.14-1, *Fire Access*. Upon compliance with existing design standards, impacts in this regard would be less than significant.

Mitigation Measures: No mitigation measures are required.

[1] City of Orange Website, *City of Orange Fire Department – Locate a Station*, https://www.cityoforange.org/225/Locate-a-Station, accessed May 8, 2018.



Source: Joseph C. Truxaw and Associates, Inc., November, 2018.

NOT TO SCALE

Michael Baker INTERNATIONAL

08/19 I JN 166516

PROPOSED CHICK-FIL-A DRIVE-THRU RESTAURANT
INITIAL STUDY/MITIGATED NEGATIVE DECLARATION NO. 1858-18

Fire Access

Exhibit 4.14-1

2) Police protection?

Less Than Significant Impact. The City of Orange Police Department provides law enforcement services to the City, including the project site. The Orange Police Department is located at 1107 N. Batavia Street, which is located approximately 1.45 miles north of the project site.[2] Implementation of the proposed project is expected to result in similar service calls typical of a neighborhood commercial facility, as the project involves the demolition of an existing 8,579 square foot restaurant structure and the construction of a new 4,563 square-foot restaurant with a two-lane drive-thru. In addition, the proposed project would be subject to City site/building plan review to ensure that the project meets safety requirements. The proposed project would include features such as security cameras within the building and project site, which would further support crime prevention. It is not expected that long-term operation of the project would require new or physically altered police facilities, the construction of which could cause significant environmental impacts. Thus, impacts in this regard would be less than significant.

Mitigation Measures: No mitigation measures are required.

3) Schools?

Less Than Significant Impact. The City provides school services through the Orange Unified School District. The proposed project would involve the demolition of an existing structure and the construction of a new restaurant use and would not result in a substantial increase in population on-site, or indirectly result in the increase in the number of students within the project area. Thus, impacts in this regard would be less than significant.

Mitigation Measures: No mitigation measures are required.

4) Parks?

Less Than Significant Impact. There are 22 parks within the City, and the nearest public park to the project site is the El Camino Real Park, located approximately 0.50-mile north. As indicated in Section 4.13, *Population and Housing*, the potential population growth generated by the project could increase the City population of 141,952[3] persons to 142,198 persons, an increase of approximately 0.2 percent. This is based on the assumption that the proposed drive-thru restaurant results in all employees relocating to the City. Thus, project implementation would not substantially increase the population in the project area. The proposed project is not anticipated to result indirectly in a substantial increase in demands for parkland. Thus, impacts in this regard would be less than significant.

Mitigation Measures: No mitigation measures are required.

5) Other public facilities?

Less Than Significant Impact. Other public services that could potentially be impacted by the proposed project include public libraries. The project site is served by the Orange Public Library, located approximately one mile to the northwest of the project site at 407 East Chapman Avenue. As indicated in Section 4.13, the potential population growth generated by the project could

[2] City of Orange Website, *City of Orange – Police*, https://www.cityoforange.org/592/Police, accessed May 22, 2018.

[3] State of California, Department of Finance, E-4 Population Estimates for Cities, Counties, and the State, 2011 – 2018, with 2010 Census Benchmark, May 2018.

increase the City's population by approximately 0.2 percent. As stated, this is based on the assumption that the proposed drive-thru restaurant results in all employees relocating to the City. Thus, project implementation would not substantially increase the population in the project area. Implementation of the proposed project would not result in a significant increase in the use of the City's public library services. Thus, impacts in this regard would be less than significant.

Mitigation Measures: No mitigation measures are required.

4.15 RECREATION

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?			✓	
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?				✓

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?

Less Than Significant Impact. Refer to Response 4.14(a)(4).

Mitigation Measures: No mitigation measures are required.

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?

No Impact. The proposed project does not include recreational facilities or require the construction or expansion of recreational facilities. No impacts to recreation beyond those described in Response 4.14(a)(4) are anticipated. No impacts would occur in this regard.

Mitigation Measures: No mitigation measures are required.

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4.16 TRANSPORTATION/TRAFFIC

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

This section is based upon the following studies, prepared by Linscott Law & Greenspan Engineers; refer to Appendix 8.7, *Traffic Impact Analysis and Circulation Plan*:

- *Traffic Impact Analysis Chick-fil-A Main Street Project, Orange, California* (Traffic Impact Analysis) (dated April 10, 2018);
- *Supplemental Drive-Through Queuing Analysis Chick-fil-A Main Street Project, Orange, California* (Supplemental Analysis) (dated May 10, 2019); and
- *Updated On-Site Transportation Circulation Plan – Chick-fil-A Main Street, Orange* (Circulation Plan) (dated May 20, 2019).

The purpose of the Traffic Impact Analysis is to evaluate potential project impacts related to traffic and circulation in the vicinity of the project site. The evaluation considers impacts on local intersections and regional transportation facilities. The following analysis scenarios are evaluated in this section:

- Existing Conditions;
- Existing Plus Project Conditions;

- Year 2020 Without Project Conditions; and
- Year 2020 With Project Conditions.

The Traffic Impact Analysis follows the *City of Orange Traffic Impact Analysis Guidelines*, dated August 15, 2007, and is consistent with the traffic impact analysis guidelines set forth in the current *Orange County Congestion Management Program* (CMP) guidelines for traffic impact studies.

STUDY AREA

The traffic analysis study area is generally comprised of those locations which have the greatest potential to experience significant traffic impacts due to the proposed project as defined by the Lead Agency (the City of Orange). The five key study intersections and four key roadway segments selected for evaluation were based on coordination with City of Orange Traffic Engineering Staff and application of the "51 or more peak hour trip threshold" criteria outlined in the *City of Orange Traffic Impact Analysis Guidelines*. The intersections and roadway segments considered as part of the Traffic Impact Analysis are described in Table 4.16-1, *Study Area Intersections*, and Table 4.16-2, *Study Area Roadway Segments*, and are mapped on Exhibit 4.16-1, *Study Area*.

Table 4.16-1
Study Area Intersections

Intersection No.[1]	Study Intersection
1	Main Street at Chapman Avenue
2	Feldner Road at Almond Avenue
3	Main Street at Almond Avenue
4	Batavia Street at Almond Avenue
5	Main Street at Palmyra Avenue

Note:
1. Intersection locations correspond to Exhibit 4.16-1.

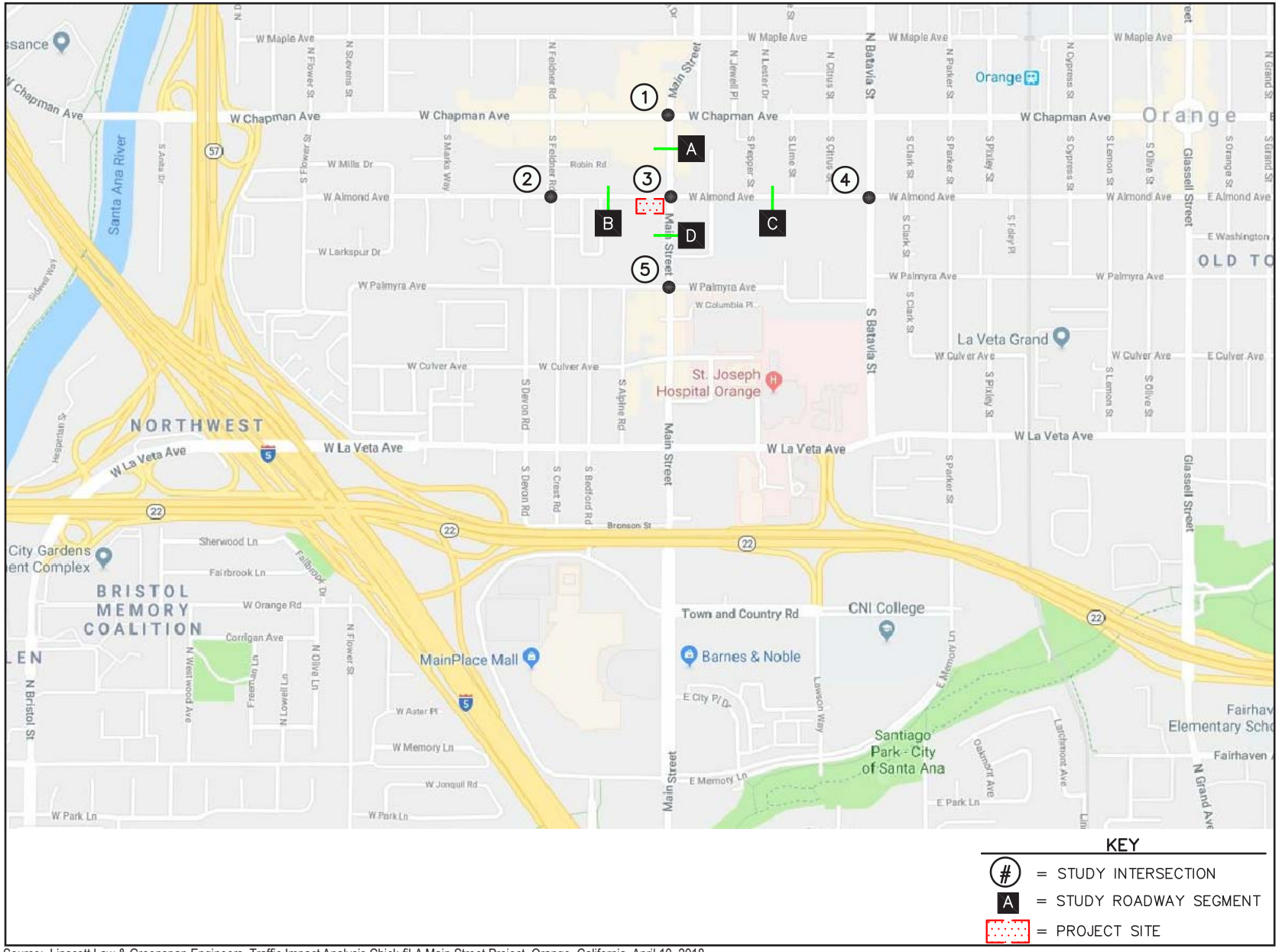
Source: Linscott Law & Greenspan Engineers, Traffic Impact Analysis Chick-fil-A Main Street Project, Orange, California, April 10, 2018.

Table 4.16-2
Study Area Roadway Segments

Segment No.[1]	Key Roadway Segment
A	Main Street, between Chapman Avenue and Almond Avenue
B	Almond Avenue, between Feldner Road and Main Street
C	Almond Avenue, between Main Street and Batavia Street
D	Main Street, between Almond Avenue and Palmyra Avenue

Note:
1. Segment locations correspond to Exhibit 4.16-1.

Source: Linscott Law & Greenspan Engineers, Traffic Impact Analysis Chick-fil-A Main Street Project, Orange, California, April 10, 2018.



Source: Linscott Law & Greenspan Engineers, Traffic Impact Analysis Chick-fil-A Main Street Project, Orange, California, April 10, 2018.

NOT TO SCALE

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PROPOSED CHICK-FIL-A DRIVE-THRU RESTAURANT
INITIAL STUDY/MITIGATED NEGATIVE DECLARATION NO. 1858-18

Study Area

Exhibit 4.16-1

INTERSECTION ANALYSIS METHODOLOGY

Existing morning (a.m.) and evening (p.m.) peak hour operating conditions for the five key study intersections were evaluated using the Intersection Capacity Utilization (ICU) methodology for signalized intersections and the methodology outlined in Chapter 20 of the *Highway Capacity Manual*, Sixth Edition (HCM) for two-way stop-controlled intersections, and the methodology outlined in Chapter 21 of the HCM for all-way stop-controlled intersections.

Intersection Capacity Utilization Method for Signalized Intersection

In conformance with City of Orange requirements, existing a.m. and p.m. peak hour operating conditions for the key signalized study intersections were evaluated using the ICU method. The ICU technique is intended for signalized intersection analysis and estimates the volume to capacity (V/C) relationship for an intersection based on the individual V/C ratios for key conflicting traffic movements. The ICU numerical value represents the percent signal (green) time and thus capacity, required by existing and/or future traffic. It should be noted that the ICU methodology assumes uniform traffic distribution per intersection approach lane and optimal signal timing.

Pursuant to City of Orange requirements, the ICU calculations use a lane capacity of 1,700 vehicles per hour (vph) for through and all turn lanes. A clearance adjustment factor of 0.05 was added to each Level of Service (LOS) calculation.

The ICU value translates to a LOS estimate, which is a relative measure of the intersection performance. The ICU value is the sum of the critical V/C ratios at an intersection and is not intended to be indicative of the LOS of each of the individual turning movements. The six qualitative categories of LOS have been defined along with the corresponding ICU value range and are shown in Table 4.16-3, *LOS and V/C Ranges*.

Table 4.16-3
LOS and V/C Ranges

LOS	Intersection V/C Ratio	Description
A	0.00 - 0.60	EXCELLENT. No vehicle waits longer than one red light, and no approach phase is fully used.
B	0.61 - 0.70	VERY GOOD. An occasional approach phase is fully utilized; many drivers begin to feel somewhat restricted within groups of vehicles.
C	0.71 - 0.80	GOOD. Occasionally drivers may have to wait through more than one red light; backups may develop behind turning vehicles.
D	0.81 - 0.90	FAIR. Delays may be substantial during portions of the rush hours, but enough lower volume periods occur to permit clearing of developing lines, preventing excessive backups.
E	0.91 - 1.00	POOR. Represents the most vehicles intersection approaches can accommodate; may be long lines of waiting vehicles through several signal cycles.
F	> 1.000	FAILURE. Backups from nearby locations or on cross streets may restrict or prevent movement of vehicles out of the intersection approaches. Potentially very long delays with continuously increasing queue lengths.

Note: LOS = Level of Service; V/C = Volume to Capacity

Source: Linscott Law & Greenspan Engineers, Traffic Impact Analysis Chick-fil-A Main Street Project, Orange, California, April 10, 2018.

Highway Capacity Manual Method for Unsignalized Intersection

The HCM unsignalized methodology for stop-controlled intersections was utilized for the analysis of the unsignalized intersections. LOS criteria for unsignalized intersections differ from LOS criteria for signalized intersections as signalized intersections are designed for heavier traffic and therefore a greater delay. Unsignalized intersections are also associated with more uncertainty for users, as delays are less predictable, which can reduce users' delay tolerance.

Two-Way Stop-Controlled Intersections

Two-way stop-controlled intersections are comprised of a major street, which is uncontrolled, and a minor street, which is controlled by stop signs. LOS for a two-way stop-controlled intersection is determined by the computed or measured control delay. The control delay by movement, by approach, and for the intersection as a whole is estimated by the computed capacity for each movement. LOS is determined for each minor-street movement (or shared movement) as well as major-street left turns. The worst side street approach delay is reported. LOS is not defined for the intersection as a whole or for major-street approaches, as it is assumed that major-street through vehicles experience zero delay. The HCM control delay value range for two-way stop-controlled intersections is shown in Table 4.16-4, *HCM Level of Service Criteria for Unsignalized Intersections*.

Table 4.16-4
HCM Level of Service Criteria for Unsignalized Intersections

LOS	Delay per Vehicle (s/v)	Description
A	≤ 10.0	Little or no delay
B	> 10.0 and ≤ 15.0	Short traffic delays
C	> 15.0 and ≤ 25.0	Average traffic delays
D	> 25.0 and ≤ 35.0	Long traffic delays
E	> 35.0 and ≤ 50.0	Very long traffic delays
F	> 50.0	Severe congestion
Notes: LOS = Level of Service, s/v = seconds per vehicle (delay)		
Source: Linscott Law & Greenspan Engineers, Traffic Impact Analysis Chick-fil-A Main Street Project, Orange, California, April 10, 2018.		

All-Way Stop-Controlled Intersections

All-way stop-controlled intersections require every vehicle to stop at the intersection before proceeding. Because each driver must stop, the decision to proceed into the intersection is a function of traffic conditions on the other approaches. The time between subsequent vehicle departures depends on the degree of conflict that results between the vehicles and vehicles on the other approaches. This methodology determines the control delay for each lane on the approach, computes a weighted average for the whole approach, and computes a weighted average for the intersection as a whole. LOS at the approach and intersection levels is based solely on control delay. The HCM control delay value range for all-way stop-controlled intersections are the same as two-way stop-controlled intersections; refer to Table 4.16-4.

Volume to Capacity Ratio Method of Analysis (Roadway Segments)

Existing daily operating conditions for the four key roadway segments have been investigated according to the daily V/C ratio of each link. The daily V/C relationship is used to estimate the LOS of the roadway segment with the volume based on the 24-hour traffic count data and the capacity based on the General Plan Circulation and Mobility Element street classifications. The roadway link capacity of each street classification according to the General Plan Circulation and Mobility Element is presented in Table 4.16-5, *Roadway Link Capacities*, along with the six corresponding service levels and associated V/C ratios.

Table 4.16-5
Roadway Link Capacities

Facility Type	Number of Lanes	LOS Criteria with Associated Roadway Capacity Daily Values (Vehicles per Day) LOS					
		A	B	C	D	E	F
Principal	8-lanes divided	45,000	52,500	60,000	67,500	75,000	--
Major	6-lanes divided	33,900	39,400	45,000	50,600	56,300	--
Primary	4-lanes divided	22,500	26,300	30,000	33,800	37,500	--
Secondary	4-lanes divided	14,400	16,800	19,200	21,600	24,000	--
Collector	2-lanes divided	7,200	8,400	9,600	10,800	12,000	--
V/C Ratio		≤ 0.60	0.61-0.70	0.71-0.80	0.81-0.90	0.91-1.00	≥ 1.00

Note: LOS = Level of Service; V/C = Volume to Capacity

Source: Linscott Law & Greenspan Engineers, *Traffic Impact Analysis Chick-fil-A Main Street Project, Orange, California*, April 10, 2018.

LEVEL OF SERVICE CRITERIA

According to the General Plan Circulation and Mobility Element and *City of Orange Traffic Impact Analysis Guidelines*, LOS D is the minimum acceptable condition that should be maintained during the morning and evening peak commute hours on all intersections and LOS D is the minimum acceptable condition that should be maintained on a daily basis on all roadway segments.

EXISTING ROADWAY SYSTEM

This section describes the existing conditions of the study area including the existing roadway description, intersection geometry, and traffic volumes.

- *Chapman Avenue* is generally a six-lane, divided roadway west of Main Street, and generally a four-lane, divided roadway east of Main Street, oriented in an east-west direction. On-street parking is generally not permitted along this roadway within the vicinity of the project. The posted speed limit on Chapman Avenue is 40 miles per hour (mph). Traffic signals control the study intersections of Chapman Avenue at Main Street, Almond Avenue, and Palmyra Avenue.

- *Main Street* is generally a four-lane, divided roadway north of Chapman Avenue and generally a six-lane, divided roadway south of Chapman Avenue, oriented in a north-south direction. Main Street borders the project site to the east and provides access to the site via one unsignalized, right-turn in/right-turn out only driveway. On-street parking is generally not permitted along this roadway within the vicinity of the project. The posted speed limit on Main Street is 35 mph north of Chapman Avenue and 40 mph south of Chapman Avenue. Traffic signals control the study intersections of Main Street at Chapman Avenue, Almond Avenue, and Palmyra Avenue.

- *Almond Avenue* is generally a two-lane, undivided roadway, oriented in an east-west direction. Almond Avenue borders the project site to the north and provides access to the site via one unsignalized, full-access driveway. On-street parking is not permitted along both sides of this roadway along project frontage. However, parking is generally permitted along the remainder of Almond Avenue within the vicinity of the project. The posted speed limit on Almond Avenue is 30 mph west of Main Street and 25 mph east of Main Street. A traffic signal controls the study intersection of Almond Avenue at Main Street.

EXISTING CONDITIONS TRAFFIC VOLUMES

To determine the existing operation of the study intersections and roadway segments, existing daily, a.m. peak hour, and p.m. peak hour traffic volumes for the five key study intersections and four key roadway segments were collected in March 2018. Traffic count data sheets and average daily traffic volumes are included in Appendix B of Appendix 8.7.

Existing Conditions Intersection Analysis

Table 4.16-6, *Intersection Analysis – Existing Conditions*, summarizes the intersection operations analysis results for existing a.m. and p.m. peak hour conditions. As shown in Table 4.16-6, all five key study intersections are currently operating at an acceptable LOS (LOS D or better) during the a.m. and p.m. peak hours.

Table 4.16-6
Intersection Analysis – Existing Conditions

No.	Intersection	Jurisdiction	Control Type	Minimum Acceptable LOS	Time Period	ICU/HCM	LOS
1	Main Street at Chapman Avenue	Orange	8 Phase Signal	D	a.m. p.m.	0.654 0.657	B B
2	Feldner Road at Almond Avenue	Orange	All-Way Stop	D	a.m. p.m.	8.4 s/v 8.6 s/v	A A
3	Main Street at Almond Avenue	Orange	5 Phase Signal	D	a.m. p.m.	0.475 0.455	A A
4	Batavia Street at Almond Avenue	Orange	All-Way Stop	D	a.m. p.m.	20.0 s/v 18.0 s/v	C C
5	Main Street at Palmyra Avenue	Orange	5 Phase Signal	D	a.m. p.m.	0.521 0.467	A A

Notes: LOS = Level of Service, s/v = seconds per vehicle (delay)

Source: Linscott Law & Greenspan Engineers, Traffic Impact Analysis Chick-fil-A Main Street Project, Orange, California, April 10, 2018.

Existing Conditions Roadway Segment Analysis

Table 4.16-7, *Roadway Segment – Existing Conditions*, summarizes the existing service level calculations for the four key roadway segments based on 24-hour traffic volumes and current geometry. As shown in Table 4.16-7, all four key study roadway segments have a minimum acceptable LOS of D and are operating at an acceptable LOS A on a daily basis.

Table 4.16-7
Roadway Segment – Existing Conditions

No.	Key Roadway Segment	Jurisdiction	No. of Existing Lanes	Arterial Classification	Existing Capacity at LOS E	Existing Traffic Conditions		
						Daily Volume	V/C Ratio	LOS
A	Main Street, between Chapman Avenue and Almond Avenue	Orange	6D	Major	56,300	28,698	0.510	A
B	Almond Avenue, between Feldner Road and Main Street	Orange	2U	Collector	12,000	2,453	0.204	A
C	Almond Avenue, between Main Street and Batavia Street	Orange	2U	Collector	12,000	7,093	0.591	A
D	Main Street, between Almond Avenue and Palmyra Avenue	Orange	6D	Major	56,300	28,578	0.508	A

Note: LOS = Level of Service; V/C = Volume to Capacity

Source: Linscott Law & Greenspan Engineers, Traffic Impact Analysis Chick-fil-A Main Street Project, Orange, California, April 10, 2018.

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

Less Than Significant Impact. Project-related impacts on the surrounding roadway system are analyzed below.

PROJECT TRIP GENERATION

To determine project trip generation of the proposed project, the Institute of Transportation Engineers (ITE) *Trip Generation* (9th Edition, 2012) published trip generation rates were used. Table 4.16-8, *Project Trip Generation*, summarizes ITE trip generation rates used to calculate the number of trips forecast to be generated by the proposed project.

Table 4.16-8
Project Trip Generation

ITE Land Use Code/Project Description	Daily 2-Way	AM Peak Hour			PM Peak Hour		
		Enter	Exit	Total	Enter	Exit	Total
Generation Factors:							
934: Fast-Food Restaurant with Drive-Thru (TE/1,000 square feet)[1]	470.95	20.50	19.69	40.19	16.99	15.68	32.67
Generation Forecast:							
Chick-fil-A Restaurant with Drive-Thru (4,563 square feet)	2.149	93	90	183	77	72	149
Pass-By (Daily 25%; A.M. 49%; P.M. 50%)[2]	-537	-46	-44	-90	-39	-36	-75
Subtotal	1,612	47	46	93	38	36	74
Total Traffic Generation Forecast	**1,612**	**47**	**46**	**93**	**38**	**36**	**74**

Notes:

1. TE/1,000 square feet = trip end per thousand square feet
2. Pass-By adjustments account for trips that are already in the everyday traffic stream on the adjoining streets (i.e. Main Street and Almond Avenue) and will stop as they pass by the project site as a matter of convenience on their path to another destination.

Source: Linscott Law & Greenspan Engineers, Traffic Impact Analysis Chick-fil-A Main Street Project, Orange, California, April 10, 2018.

As shown in Table 4.16-8, the proposed project is forecast to generate 93 a.m. peak hour trips, 74 p.m. peak hour trips, and 1,612 daily trips. Although there is an existing restaurant on-site, this restaurant is currently vacant, and thus was not discounted from the project trip distribution calculations.

EXISTING PLUS PROJECT CONDITIONS

This section analyzes traffic conditions associated with the addition of trips forecast to be generated by the proposed project on the existing roadway network.

Existing Plus Project Conditions Traffic Conditions

Existing plus project conditions peak hour volumes were derived by adding project-generated trips to the existing condition traffic volumes. Figure 5.4, *Existing Plus Project AM Peak Hour Traffic Volumes*, and Figure 5.5, *Existing Plus Project PM Peak Hour Traffic Volumes*, of the Traffic Impact Analysis (Appendix 8.7) show existing plus project conditions a.m. and p.m. peak hour intersection volumes.

Existing Plus Project Conditions Intersection Analysis

Table 4.16-9, *Intersection Analysis – Existing Plus Project Conditions*, summarizes the a.m. and p.m. peak hour intersection operations analysis results for the existing plus project condition, based on existing and initial intersection geometry. As concluded in Table 4.16-9, all five key study intersections are projected to operate at an acceptable LOS (LOS D or better) during the a.m. and p.m. peak hours.

Table 4.16-9
Intersection Analysis – Existing Plus Project Conditions

No.	Intersection	Time Period	Existing		Existing Plus Project		Project Significant Impact	
			ICU/HCM	LOS	ICU/HCM	LOS	Increase	Yes/No
1	Main Street at Chapman Avenue	a.m. p.m.	0.654 0.567	B B	0.666 0.660	B B	0.012 0.003	No No
2	Feldner Road at Almond Avenue	a.m. p.m.	8.4 s/v 8.7 s/v	A A	8.4 s/v 8.7 s/v	A A	0.0 0.1	No No
3	Main Street at Almond Avenue	a.m. p.m.	0.475 0.455	A A	0.501 0.472	A A	0.026 0.017	No No
4	Batavia Street at Almond Avenue	a.m. p.m.	20.0 s/v 18.0 s/v	C C	20.4 s/v 18.3 s/v	C C	0.4 s/v 0.3 s/v	No No
5	Main Street at Palmyra Avenue	a.m. p.m.	0.521 0.467	A A	0.523 0.469	A A	0.002 0.002	No No

Notes: LOS = Level of Service, s/v = seconds per vehicle (delay)
Source: Linscott Law & Greenspan Engineers, *Traffic Impact Analysis Chick-fil-A Main Street Project, Orange, California*, April 10, 2018.

Based on the traffic impact criteria and thresholds discussed above, the traffic associated with the proposed project would not significantly impact any of the five study intersections for existing plus project conditions.

Existing Plus Project Conditions Roadway Segment Analysis

Table 4.16-10, *Roadway Segment Analysis – Existing Plus Project Conditions*, summarizes the roadway segment LOS results at the four key roadway segments for existing plus project traffic conditions. As concluded in Table 4.16-10, all four roadway segments are projected to operate at an acceptable LOS (LOS D or better) during the a.m. and p.m. peak hours.

Table 4.16-10
Roadway Segment Analysis – Existing Plus Project Conditions

No.	Key Roadway Segment	Existing Capacity at LOS E	Existing Traffic Conditions			Existing Plus Project Traffic Conditions				
			Daily Volume	V/C Ratio	LOS	Daily Volume	V/C Ratio	LOS	Inc.	Adverse?
A	Main Street, between Chapman Avenue and Almond Avenue	56,300	28,698	0.510	A	29,464	0.523	A	0.013	No
B	Almond Avenue, between Feldner Road and Main Street	12,000	2,453	0.204	A	3,622	0.302	A	0.098	No
C	Almond Avenue, between Main Street and Batavia Street	12,000	7,093	0.591	A	7,254	0.605	B	0.014	No
D	Main Street, between Almond Avenue and Palmyra Avenue	56,300	28,578	0.508	A	29,223	0.519	A	0.011	No

Notes: LOS = Level of Service, V/C = Volume to Capacity
Source: Linscott Law & Greenspan Engineers, Traffic Impact Analysis Chick-fil-A Main Street Project, Orange, California, April 10, 2018.

Based on the traffic impact criteria and thresholds discussed above, project generated traffic would not significantly impact any of the four key roadway segments above for existing plus project conditions.

YEAR 2020 WITHOUT PROJECT CONDITIONS

This section analyzes the traffic conditions associated with the addition of trips forecast at the time the project is anticipated to open in Year 2020.

Year 2020 Without Project Conditions Traffic Conditions

The year 2020 without project traffic volumes were calculated using an ambient growth rate of 1.0 percent per year, for two years, to the existing (2018) traffic volumes.

Table 4.16-11, *Cumulative Projects*, summarizes the cumulative development in the project's vicinity that are expected to generate vehicular traffic which may affect the operating conditions of the key study intersections and/or roadway segments. Exhibit 4.16-2, *Cumulative Project Map*, illustrates the location of the cumulative projects whose trip generation and assignment was added to the study area network.

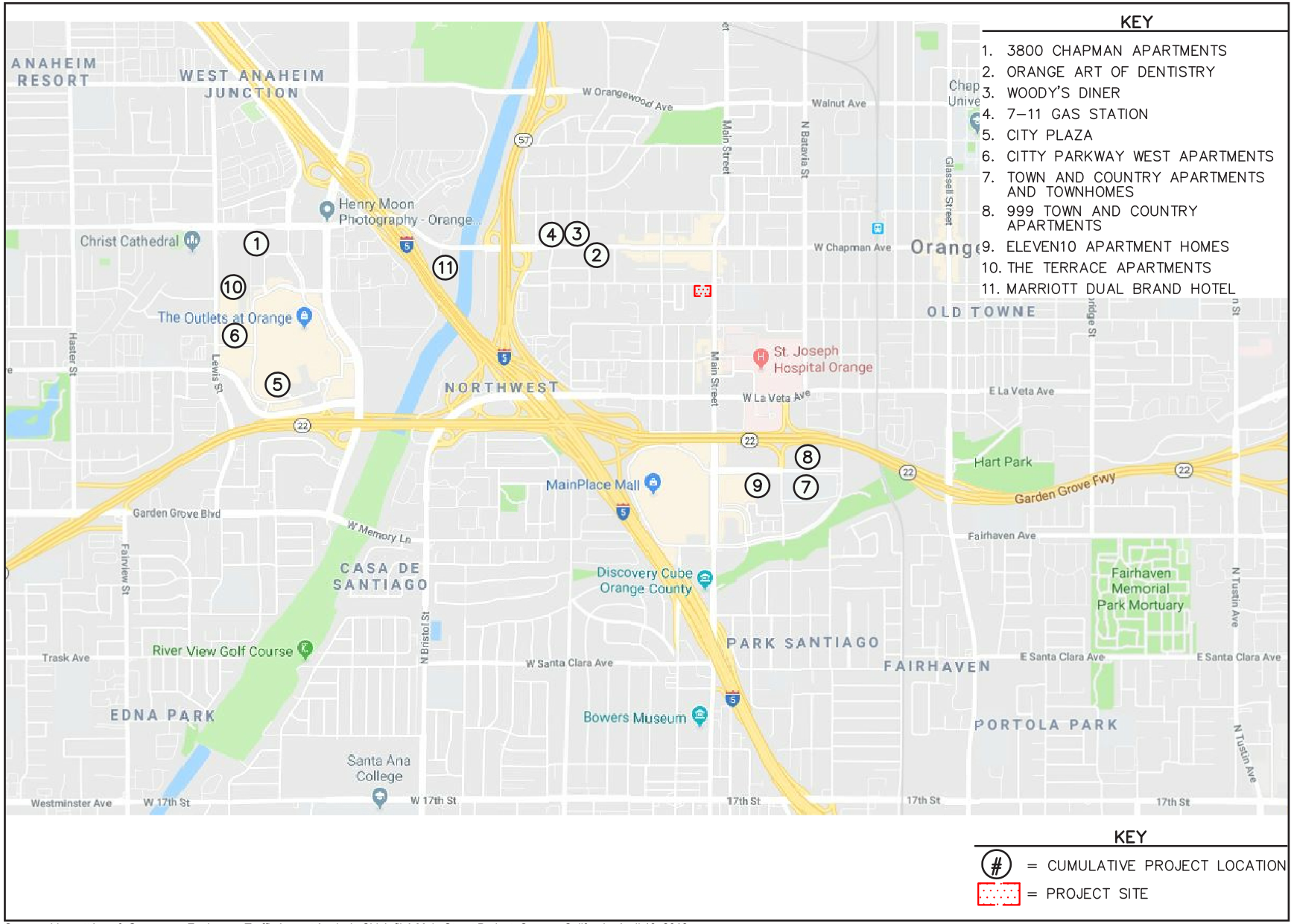
Table 4.16-11
Cumulative Projects

No.	Description	Location/Address[1]	Size
1	3800 Chapman Apartments	3800 Chapman Avenue	280 DU Apartments
2	Orange Art of Dentistry	2006 West Chapman Avenue	2,565 SF Dentist Office
3	Woody's Diner	2145 West Chapman Avenue	3,400 SF Restaurant
4	7-11 Gas Station	2245 West Chapman Avenue	2,400 SF Convenience Store and Gas Station
5	City Plaza	1 West City Boulevard	335 DU Apartments 165 Room Hotel
6	City Parkway West Apartments	500 and 600 City Parkway	220 Apartments
7	Town and Country Apartments and Townhomes	702 West Town and Country Road	653 DU Apartments 74 DU Townhomes
8	999 Town and Country Apartments	999 Town and Country Road	262 DU Apartments
9	Eleven10 Apartment Homes	1110 Town and Country Road	260 DU Apartments
10	The Terrace Apartments	Southeast corner of Chapman Avenue and Lewis Street	167 DU Apartments 28 DU Townhomes
11	Marriott Dual Brand Hotel	3000 West Chapman Avenue	300 Room Hotel 3,000 SF Restaurant

Note: SF = Square Feet; DU = Dwelling Units

1. It is acknowledged that all cumulative projects are located within the City of Orange.

Source: Linscott Law & Greenspan Engineers, *Traffic Impact Analysis Chick-fil-A Main Street Project, Orange, California*, April 10, 2018.



Source: Linscott Law & Greenspan Engineers, Traffic Impact Analysis Chick-fil-A Main Street Project, Orange, California, April 10, 2018.

NOT TO SCALE

Michael Baker INTERNATIONAL

08/19 I JN 166516

PROPOSED CHICK-FIL-A DRIVE-THRU RESTAURANT
INITIAL STUDY/MITIGATED NEGATIVE DECLARATION NO. 1858-18

Cumulative Project Map

Exhibit 4.16-2

Year 2020 Without Project Conditions Intersection Analysis

Table 4.16-12, *Intersection Analysis – Year 2020 Conditions*, summarizes year 2020 without project conditions a.m. and p.m. peak hour LOS of the study intersections.

Table 4.16-12
Intersection Analysis – Year 2020 Conditions

No.	Intersection	Peak Hour	Existing		Year 2020 Without Project		Year 2020 With Project		Potentially Significant Impact	
			ICU/HCM (s/v)	LOS	ICU/HCM (s/v)	LOS	ICU/HCM (s/v)	LOS	Increase	Yes/No
1	Main Street at Chapman Avenue	a.m. p.m.	0.654 0.567	B B	0.667 0.702	B C	0.678 0.705	B C	0.011 0.003	No No
2	Feldner Road at Almond Avenue	a.m. p.m.	8.4 s/v 8.7 s/v	A A	8.4 s/v 8.7 s/v	A A	8.5 s/v 8.7 s/v	A A	0.1 s/v 0.0 s/v	No No
3	Main Street at Almond Avenue	a.m. p.m.	0.475 0.455	A A	0.484 0.468	A A	0.509 0.485	A A	0.025 0.017	No No
4	Batavia Street at Almond Avenue	a.m. p.m.	20.0 s/v 18.0 s/v	C C	21.4 s/v 18.9 s/v	C C	21.9 s/v 19.2 s/v	C C	0.5 s/v 0.3 s/v	No No
5	Main Street at Palmyra Avenue	a.m. p.m.	0.521 0.467	A A	0.530 0.480	A A	0.532 0.482	A A	0.002 0.002	No No

Notes: LOS = Level of Service; s/v = seconds per vehicle (delay)

Source: Linscott Law & Greenspan Engineers, *Traffic Impact Analysis Chick-fil-A Main Street Project, Orange, California*, April 10, 2018.

As concluded in Table 4.16-12, the intersections are projected to operate at an acceptable LOS (LOS D or better) during the a.m. and p.m. peak hours for year 2020 without project conditions.

Year 2020 Without Project Conditions Roadway Segment Analysis

Table 4.16-13, *Roadway Segment Analysis – Year 2020 Conditions*, summarizes year 2020 without project conditions a.m. and p.m. peak hour LOS of the four key roadway segments.

Table 4.16-13
Roadway Segment Analysis – Year 2020 Conditions

No.	Key Roadway Segment	Existing Capacity at LOS E	Year 2020 Cumulative Traffic Conditions			Year 2020 Cumulative Plus Project Traffic Conditions				
			Daily Volume	V/C Ratio	LOS	Daily Volume	V/C Ratio	LOS	Inc.	Adverse?
A	Main Street, between Chapman Avenue and Almond Avenue	56,300	30,676	0.545	A	31,442	0.558	A	0.013	**No**
B	Almond Avenue, between Feldner Road and Main Street	12,000	2,502	0.209	A	3,671	0.306	A	0.097	**No**
C	Almond Avenue, between Main Street and Batavia Street	12,000	7,235	0.603	B	7,396	0.616	B	0.013	**No**
D	Main Street, between Almond Avenue and Palmyra Avenue	56,300	30,413	0.540	A	31,058	0.552	A	0.012	**No**

Notes: LOS = Level of Service, V/C = Volume to Capacity

Source: Linscott Law & Greenspan Engineers, Traffic Impact Analysis Chick-fil-A Main Street Project, Orange, California, April 10, 2018.

As concluded in Table 4.16-13, the four key roadway segments are projected to operate at an acceptable LOS (LOS D or better) during the a.m. and p.m. peak hours for year 2020 without project conditions.

YEAR 2020 WITH PROJECT CONDITIONS

This section analyzes traffic conditions associated with the addition of trips forecast to be generated by the proposed project to year 2020 with project conditions.

Year 2020 With Project Conditions Traffic Volumes

Year 2020 with project conditions traffic volumes were derived by adding forecast project-generated trips to year 2020 without project conditions traffic volumes. Year 2020 with project conditions a.m. and p.m. peak hour volumes at the study intersections is depicted on Traffic Impact Analysis Figure 6-6, *Year 2020 Cumulative Plus Project AM Peak Hour Traffic Volumes*, and Figure 6-7, *Year 2020 Cumulative Plus Project PM Peak Hour Traffic Volumes*, provided in Appendix 8.7.

Year 2020 With Project Conditions Intersection Analysis

Table 4.16-12 summarizes the a.m. and p.m. peak hour intersection operations analysis results for year 2020 with project conditions, based on existing and initial intersection geometry. As indicated in Table 4.16-12, the intersections are projected to continue to operate at an acceptable LOS (LOS D or better) during the a.m. and p.m. peak hours for year 2020 with project conditions. Based on the traffic impact criteria and thresholds discussed above, the addition of project generated trips would not result in a significant impact at any of the study intersections for year 2020 with project conditions.

Year 2020 With Project Conditions Roadway Segment Analysis

Table 4.16-13 summarizes year 2020 with project conditions a.m. and p.m. peak hour LOS of the four key roadway segments. As indicated in Table 4.16-13, the four roadway segments are projected to continue to operate at an acceptable LOS (LOS D or better) during the a.m. and p.m. peak hours for year 2020 with project conditions. Based on the traffic impact criteria and

thresholds discussed above, the addition of project generated trips would not result in a significant impact at any of the key roadway segments for year 2020 with project conditions.

CONCLUSIONS

The proposed project is forecast to generate approximately generate 93 a.m. peak hour trips, 74 p.m. peak hour trips, and 1,612 daily trips. Based on the applicable agency-established thresholds of significance, the proposed project would not result in significant traffic impacts at the study intersections or roadway segments for the existing conditions, or opening year (2020). Impacts would be less than significant in this regard.

Mitigation Measures: No mitigation measures are required.

b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?

Less Than Significant Impact. The City of Orange is subject to the *Orange County Congestion Management Program* (CMP). The CMP requires that a traffic impact analysis be conducted for any project generating 2,400 or more daily trips, or 1,600 or more daily trips for projects that directly access the CMP Highway System. According to the CMP guidance, this number is based on the desire to analyze impacts which would be 3 percent or more of the existing CMP highway system facilities' capacity. As indicated in Response 4.16(a), the project would generate 1,612 daily trips. However, the project site does not directly access the CMP Highway System. As a result, project implementation would not result in significant CMP traffic impacts and no impacts would occur in this regard.

Mitigation Measures: No mitigation measures are required.

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

No Impact. The project site is located approximately 0.4 miles northwest of the Saint Joseph's Hospital helipad and 1.3 miles east of the Children's Hospital of Orange County helipad. However, construction and operation of the proposed project would not increase the frequency of air traffic or alter air traffic patterns, as the project would replace an existing single story restaurant building with a new single story restaurant building involving a maximum height of approximately 22 feet. Therefore, no impacts would occur in this regard.

Mitigation Measures: No mitigation measures are required.

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

Less Than Significant Impact With Mitigation Incorporated. The proposed project would include two 12-foot drive-thru lanes (that merge into one 12-foot lane) with directional signage located at the northwestern portion of the project site. The proposed drive-thru lane would wrap around the western and southern sides of the proposed building, and vehicles would enter from West Almond Avenue or South Main Street and exit the drive-thru lane at the southeast corner of the building. The drive-thru would provide stacking for up to 17 vehicles from the entry to the pick-up window with additional on-site overflow space as needed.

DRIVE-THRU LANE QUEUING ASSESSMENT

The Traffic Impact Analysis assessed the project's drive-thru lane queuing based on sample surveys collected at the five following Chick-fil-A locations:

- 2889 Park Avenue, Tustin, CA;
- 2575 North Tustin Street, Orange, CA;
- 6428 Irvine Boulevard, Irvine, CA;
- 24011 El Toro Road, Laguna Hills, CA; and
- 3555 Grand Oaks, Corona, CA.

Supplemental sample surveys were also collected as part of the Supplemental Analysis at the following two Chick-fil-A locations.

- 4401 Pacific Coast Highway, Long Beach, CA; and
- 4050 Lincoln Boulevard, Venice, CA.

For the five initial locations surveyed, drive-thru queuing observations were conducted at each location on a weekday during the morning, mid-day, and evening service periods, generally between the hours of 7:00 a.m. and 9:00 a.m., 11:00 a.m. and 2:00 p.m., and 4:00 p.m. and 7:00 p.m. Saturday queuing observations were also collected between 11:30 a.m. and 2:30 p.m. and 4:00 p.m. and 10:00 p.m. at the Laguna Hills site and Corona site. Table 4.16-14, *Existing Chick-fil-A Drive-Thru Lane Queue Observations*, summarizes the observed drive-thru lane queue data collected at the five Chick-fil-A locations.

Table 4.16-14
Existing Chick-fil-A Drive-Thru Lane Queue Observations

Study Site	Drive-Thru Observation Date	Number of Vehicles Observed in Drive-Thru			Proposed Project	
		85th Percentile[1] Queue	95th Percentile Queue	Maximum Queue	Drive-Thru Lane Storage	Adequate for 85th Percentile Queue?
2889 Park Avenue, Tustin, CA	12/2010	6	13	15	17	Yes
2575 North Tustin Street, Orange, CA	04/2012	11	14	15	17	Yes
6428 Irvine Boulevard, Irvine, CA	04/2012	8	10	12	17	Yes
24011 El Toro Road, Laguna Hills, CA	01/2017 and 11/2017	11	14	17	17	Yes
3555 Grand Oaks, Corona, CA	01/2017 and 11/2017	13	13	16	17	Yes

Note:
1. The 85th percentile queue is generally utilized when designing/sizing the length of the proposed drive-thru lane.

Source: Linscott Law & Greenspan Engineers, Traffic Impact Analysis Chick-fil-A Main Street Project, Orange, California, April 10, 2018.

For the two supplemental survey locations, the locations were selected based on their store location situated along a major arterial intersection, as a stand alone store, rather than part of a larger shopping center. Drive-thru queuing observations were conducted at the two locations on two weekdays during the mid-day and evening service periods, generally between the hours of 11:00 a.m. and 2:00 p.m. and 5:00 p.m. and 8:00 p.m. Saturday queuing observations were also collected between the hours of 11:00 a.m. and 2:00 p.m. and 6:00 p.m. and 9:00 p.m. Table 4.16-15 through Table 4.16-17 include the results of the queuing observation surveys for weekday (Wednesday/Thursday), weekday (Friday), and weekend (Saturday) peak periods, respectively.

Table 4.16-15
Supplemental Existing Chick-fil-A Drive-Thru Lane Queue Observations (Weekday)

Study Site	Drive-Thru Observation Date	Number of Vehicles Observed in Drive-Thru			Proposed Project	
		85th Percentile[1] Queue	95th Percentile Queue	Maximum Queue	Drive-Thru Lane Storage	Adequate for 85th Percentile Queue?
4401 Pacific Coast Highway, Long Beach, CA	04/2019	16	18	20	17	Yes
4050 Lincoln Boulevard, Venice, CA	02/2019	11	14	17	17	Yes

Note:
1. The 85th percentile queue is generally utilized when designing/sizing the length of the proposed drive-thru lane.

Source: Linscott Law & Greenspan Engineers, Supplemental Drive-Through Queuing Analysis Chick-fil-A Main Street Project, Orange, California, May 10, 2019.

Table 4.16-16
Supplemental Existing Chick-fil-A Drive-Thru Lane Queue Observations (Friday)

Study Site	Drive-Thru Observation Date	Number of Vehicles Observed in Drive-Thru			Proposed Project	
		85th Percentile[1] Queue	95th Percentile Queue	Maximum Queue	Drive-Thru Lane Storage	Adequate for 85th Percentile Queue?
4401 Pacific Coast Highway, Long Beach, CA	04/2019	15	15	18	17	Yes
4050 Lincoln Boulevard, Venice, CA	02/2019	11	13	15	17	Yes

Note:
1. The 85th percentile queue is generally utilized when designing/sizing the length of the proposed drive-thru lane.

Source: Linscott Law & Greenspan Engineers, Supplemental Drive-Through Queuing Analysis Chick-fil-A Main Street Project, Orange, California, May 10, 2019.

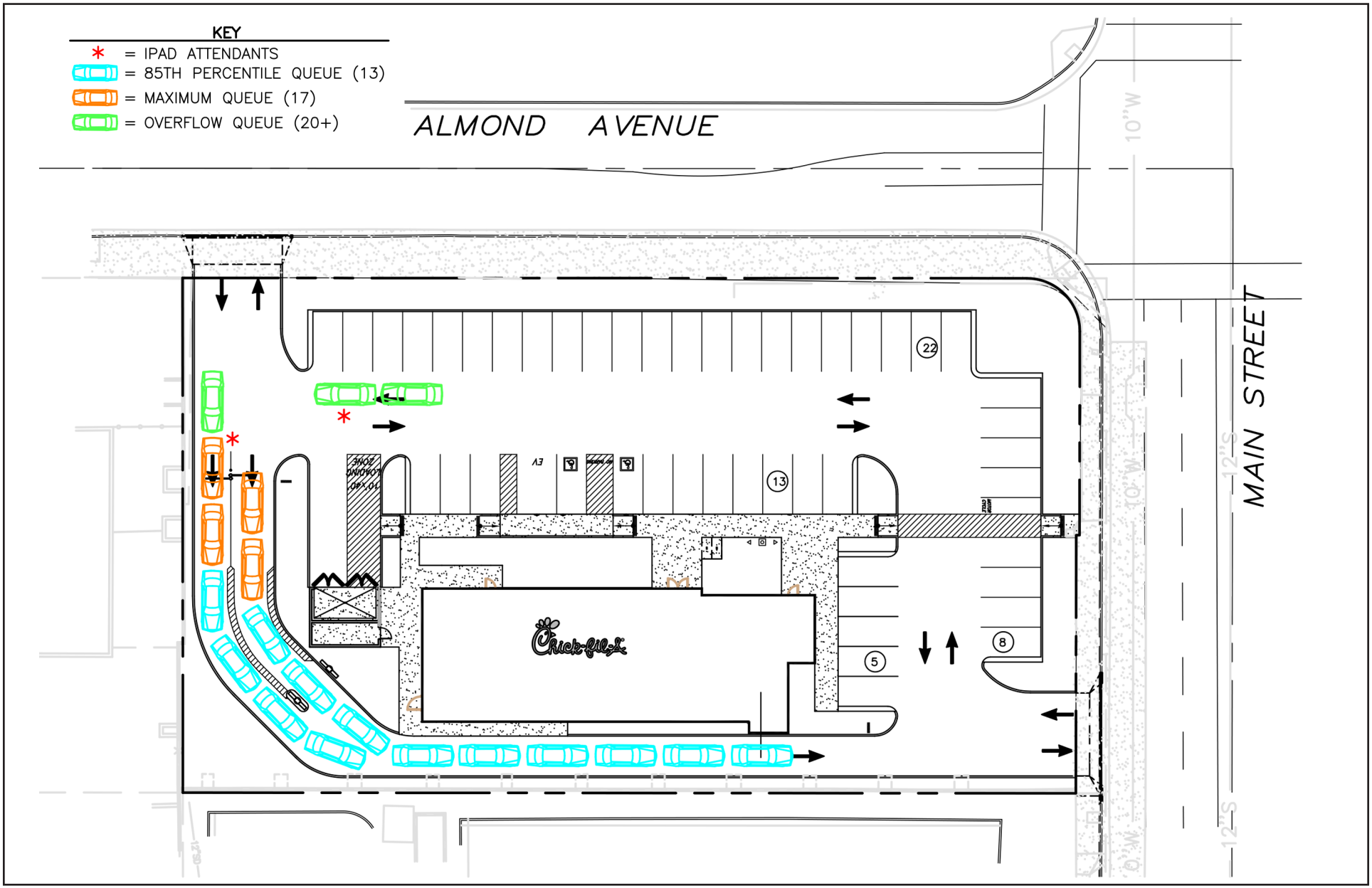
Table 4.16-17
Supplemental Existing Chick-fil-A Drive-Thru Lane Queue Observations (Saturday)

Study Site	Drive-Thru Observation Date	Number of Vehicles Observed in Drive-Thru			Proposed Project	
		85th Percentile[1] Queue	95th Percentile Queue	Maximum Queue	Drive-Thru Lane Storage	Adequate for 85th Percentile Queue?
4401 Pacific Coast Highway, Long Beach, CA	04/2019	14	16	19	17	Yes
4050 Lincoln Boulevard, Venice, CA	02/2019	9	10	12	17	Yes

Note:
1. The 85th percentile queue is generally utilized when designing/sizing the length of the proposed drive-thru lane.

Source: Linscott Law & Greenspan Engineers, Supplemental Drive-Through Queuing Analysis Chick-fil-A Main Street Project, Orange, California, May 10, 2019.

Based on Table 4.16-14, the five study sites would experience an 85th percentile queue range of between six to 13 vehicles. Further, based on Table 4.16-15 through Table 4.16-17, the two additional study sites would experience an 85th percentile queue range of between nine to 16 vehicles. As a result, the 85th percentile expected queues can be accommodated without interfering with internal circulation or causing congestion to the drive aisle and the project's drive-thru storage for up to 17 vehicles would accommodate anticipated drive-thru operations throughout the day within the drive-thru lane. It should also be noted that the maximum queue of 20 vehicles, which only occurred two times and only at one site throughout the survey, can be accommodated on-site within the drive aisles without impacting traffic flow on Almond Avenue; refer to Exhibit 4.16-3. Although determined to be unlikely based on the Traffic Impact Analysis and Supplemental Analysis, should the drive-thru queue extend onto Almond Avenue, Mitigation Measure TRA-1 would ensure Chick-fil-A staff direct customers to utilize the Main Street access to enter the drive-thru lane. Chick-fil-A management would also be required to direct staff to park in the stalls closest to the drive-thru entrance along Almond Avenue. This would allow stacking, if needed. It should be noted that the east-west on-site drive aisle along the restaurant frontage is not considered a fire lane, so queuing within the drive aisle is acceptable.



Source: Linscott Law & Greenspan Engineers, On-Site Transportation Circulation & Queuing Management Plan – Chick-fi-A Main Street, Orange, January 31, 2019

NOT TO SCALE

Michael Baker INTERNATIONAL

08/19 I JN 166516

PROPOSED CHICK-FIL-A DRIVE-THRU RESTAURANT
INITIAL STUDY/MITIGATED NEGATIVE DECLARATION NO. 1858-18

Circulation Plan

Exhibit 4.16-3

PROJECT DRIVEWAY QUEUING ANALYSIS

The project site would be accessed by one unsignalized, full-access driveway located along Almond Avenue (Project Driveway No. 1) and one unsignalized, right-turn in/right-turn out only driveway located along Main Street (Project Driveway No. 2). Table 4.16-18, *Project Driveway Peak Hour Levels of Service Summary*, summarizes the intersection operations at Project Driveway No. 1 and No. 2 for year 2020 with project conditions.

Table 4.16-18
Project Driveway Peak Hour Levels of Service Summary

Project Driveway	Time Period	Intersection Control	Year 2020 With Project Traffic Conditions	
			HCM (s/v)	LOS
Project Driveway No. 1 at Almond Avenue	a.m. p.m.	One-way stop	10.1 9.5	B A
Project Driveway No. 2 at Main Street	a.m. p.m.	One-way stop	18.1 14.8	C B

Note: LOS = Level of Service, s/v = seconds per vehicle

Source: Linscott Law & Greenspan Engineers, Traffic Impact Analysis Chick-fil-A Main Street Project, Orange, California, April 10, 2018.

As indicated in Table 4.16-18, the two proposed project driveways would operate at an acceptable LOS during the a.m. and p.m. peak hour periods for year 2020 with project conditions. Based on the traffic impact criteria and thresholds discussed above, the addition of project generated trips would not result in a significant impact at any of the project driveways for year 2020 with project conditions. As illustrated on Exhibit 4.16-3, an approximately 50-foot space between the end of the maximum queue and the entrance to the parking lot from Almond Avenue would be available. Thus, drive-thru queuing would not impact operations of Project Driveway No. 1 at Almond Avenue. Based on the driveway analyses and the distance of the project driveways from the intersection of Main Street and Almond Avenue, operations of Project Driveway No. 1 at Almond Avenue and Project Driveway No. 2 at Main Street would not result in significant impacts to neighborhood traffic. Additionally, left-turn movements into Project Driveway No. 1 at Almond Avenue would not conflict with entry into the existing medical office building to the north of the project site. Further, eastbound morning and evening peak hour traffic volumes along West Almond Avenue are 174 and 98 trips, respectively, which is minimal. Therefore, eastbound traffic would not block access to Project Driveway No. 1 at Almond Avenue. Thus, impacts in regard would be less than significant.

DELIVERY TRUCK TURNING RADII ANALYSIS

The Traffic Impact Analysis concluded that the on-site circulation layout of the proposed project on an overall basis is adequate; refer to Figure 2-2 of Appendix 8.7. Curb return radii have been confirmed and are generally adequate for small service/delivery (FedEx, UPS) trucks and trash trucks. Further, Chick-fil-A would schedule night-key (after hour) deliveries to minimize traffic disruptions during our operating hours. Impacts in this regard would be less than significant.

BUS STOP LOCATIONS

There are two bus stops located in proximity to the project site; refer to the discussion below regarding bus transit services. Orange County Transportation Authority (OCTA) Bus Stop 5502 (Main-Almond) is located approximately 0.04-mile to the northeast of the project site, while Bus Stop 5523 (Main-Almond) is directly adjacent to the project site's eastern boundary. The project

would not result in any conflicts or hazards with Bus Stop 5502, as it is located north of Almond Avenue on the east side of Main Street. Bus Stop 5523 is directly adjacent to the project site's eastern boundary, just south of the existing driveway. The project's proposed driveway location on Main Street could potentially interfere with the physical length of the bus stop. In consultation with OCTA, the project proposes to relocate Bus Stop 5523 approximately 100 feet to the south of its current location to avoid any conflicts with buses accessing the bus stop and the proposed driveway, while still providing existing service to transit users. OCTA approval of the bus stop relocation is identified as a required approval in Section 2.3.[1] With appropriate approvals required by OCTA pertaining to the bus stop relocation, impacts in this regard would be less than significant.

Mitigation Measures:

TRA-1 The applicant shall implement the proposed on-site transportation circulation plan detailed in the *Updated On-Site Transportation Circulation Plan – Chick-fil-A Main Street, Orange*, dated May 20, 2019 and prepared by Linscott Law & Greenspan Engineers, which requires Chick-fil-A staff to monitor vehicle queuing in the drive-thru lanes to ensure queued vehicles do not block vehicular circulation within the parking lot and at the Almond Avenue driveway. Should queueing occur beyond the available vehicle storage (17 vehicles), team members shall go out to the drive-thru lanes and take orders with hand held ordering and payment devices to increase ordering and payment efficiency and reduce queues. Should the vehicle queue extend onto Almond Avenue, Chick-fil-A staff shall direct customers to utilize the Main Street access to enter the drive-thru lane. Chick-fil-A management shall also direct staff to park in the stalls closest to the drive-thru entrance along Almond Avenue, allowing stacking.

e) Result in inadequate emergency access?

Less Than Significant Impact. According to the General Plan Public Safety Element, the City has an emergency plan which establishes emergency preparedness and emergency response procedures. All City arterials are recognized as primary emergency response routes and non-arterials are recognized as secondary emergency response routes. As discussed in Response 4.16(d), the project site would have two project driveways at Almond Avenue and Main Street. All project driveways would be subject to the City's site access and circulation requirements identified in Municipal Code Title 12, *Streets, Sidewalks and Public Places*. Further, all construction staging would occur within the boundaries of the project site and would not interfere with the circulation of nearby roadways or implementation of the City's emergency plan. Further, as discussed in Response 4.14(a)(1), the project would provide adequate emergency access for fire vehicles via South Main Street to a 20-foot wide fire access lane on-site located at the exit of the drive-thru to avoid potential blockage by queued vehicles; refer to Exhibit 4.14-1, *Fire Access*. Impacts concerning emergency access would be less than significant in this regard.

Mitigation Measures: No mitigation measures are required.

1 Written Correspondence: Kyle Poff, Stops and Zones Analyst, Orange County Transportation Authority, dated May 10, 2019; refer to Appendix 8.8, *OCTA Correspondence*.

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

Less Than Significant Impact. The project would not conflict with adopted policies, plans, or programs supporting alternative transportation. The project site is served by adequate public transit, and pedestrian facilities that would support the project, as discussed below. Refer to Section 4.10, *Land Use and Planning*, for an expanded analysis of the project's consistency with the City's policies for pedestrian and transit-oriented development.

PUBLIC BUS TRANSIT SERVICE

The City of Orange is primarily served by the OCTA bus service. Review of the OCTA's Next Ride Beta database indicates that there are two bus routes currently providing stops within walking distance to the proposed project site (Bus Stops 5502 and 5523).[2] As discussed above, Bus Stop 5523 (situated just south of the existing on-site driveway) would be relocated approximately 100 feet to the south of its current location. Similar signage and bench would be installed consistent with OCTA requirements. The service schedule would not change. Thus, the bus stop and associated service routes would remain available to transit users.

Although there is the potential for transit riders to patronize the proposed restaurant, as a fast food restaurant, the project would not represent a land use which would result in a significant volume of transit trips. Based on the available transit opportunities within the project area, project implementation is not anticipated to interfere with access to any bus routes. Therefore, impacts to existing transit service would be less than significant in this regard.

BICYCLE FACILITIES

There are currently no designated bicycle lanes adjacent to the project site. According to Figure CM-3, *Plan for Recreational Trails and Bikeways*, of the General Plan Circulation and Mobility Element, Almond Avenue is identified as a proposed area for future Class III (On-Street) bicycle facilities. All construction staging would occur within the boundaries of the project site and would not interfere with surrounding roadways. Further, project operations are not anticipated to impact the performance of future bicycle facilities, as all project driveways would be subject to the City's site access and circulation requirements identified in Municipal Code Title 12, *Streets, Sidewalks and Public Places*. The location of the restaurant structure within the project site would allow drive-thru lanes to wrap around the western and southern site perimeter, ensuring the lanes would not obstruct circulation routes for future bicycle facilities; refer to Exhibit 4.16-3. The project would provide bicycle parking for patrons; refer to Exhibit 2-3, *Site Plan*. A less than significant impact would occur in this regard.

PEDESTRIANS

Sidewalks are located adjacent to the project site's northern and eastern boundaries. Construction staging would occur within the boundaries of the project site but could temporarily limit pedestrian use of sidewalks adjacent to the project site's northern and eastern boundaries. The project's construction-related impacts to pedestrian circulation would be temporary and would cease upon construction completion. Project operations would not impact pedestrian circulation,

2 Orange County Transportation Authority, *Next Ride Beta*, https://www.octa.net/Bus/Routes-and-Schedules/NextRide/Location/?location=33.7897033,-117.86652179999999, accessed May 10, 2018.

as access to existing sidewalks along Almond Avenue and Main Street would remain. The project would provide new on-site landscaping along the perimeter of the project site, adjacent to the existing sidewalks. The location of the restaurant structure within the project site would allow drive-thru lanes to wrap around the western and southern site perimeter, ensuring the lanes would not obstruct circulation routes for pedestrian walkways; refer to Exhibit 4.16-3. Two pedestrian pathways from Main Street and Almond Avenue to the on-site Chick-fil-A restaurant would also be constructed to allow for pedestrian connectivity along the adjacent roadways. A less than significant impact would occur in this regard.

Mitigation Measures: No mitigation is required.

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4.17 TRIBAL CULTURAL RESOURCES

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. 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:				
1) 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				✓
2) 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 Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.		✓		

As of July 1, 2015, California Assembly Bill 52 (AB 52) was enacted and expanded CEQA by establishing a formal consultation process for California tribes within the CEQA process. The bill specifies that any project may affect or cause a substantial adverse change in the significance of a tribal cultural resource would require a lead agency to "begin consultation with a California Native American tribe that is traditional and culturally affiliated with the geographic area of the proposed project." Section 21074 of AB 52 also defines a new category of resources under CEQA called "tribal cultural resources." Tribal cultural resources are defined as "sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe" and are either listed on or eligible for the California Register of Historical Resources or a local historic register, or if the lead agency chooses to treat the resource as a tribal cultural resource.

In compliance with AB 52, the City of Orange distributed letters (to those Native American tribes that have requested notification for the purposes of AB 52) notifying each tribe of the opportunity to consult with the City on the proposed project on June 13, 2018; refer to Appendix 8.2, *Cultural Resources*. The Gabrieleno Band of Mission Indians – Kizh Nation responded requesting consultation within the 30-day period required under AB 52.

On February 19, 2016, the California Natural Resources Agency proposed to adopt and amend regulations as part of AB 52 implementing Title 14, Division 6, Chapter 3 of the California Code of Regulations, CEQA Guidelines, to include consideration of impacts to tribal cultural resources pursuant to Government Code Section 11346.6. On September 27, 2016, the California Office of Administrative Law approved the amendments to Appendix G of the CEQA Guidelines, and these amendments are addressed within this Initial Study.

a) 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:

1) 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

No Impact. As analyzed in Response 4.5(a), there are no resources on the project site that are eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined by Public Resources Code Section 5020.1(k). As such, development of the proposed project would not cause a substantial adverse change in the significance of a listed resource and no impacts would occur in this regard.

Mitigation Measures: No mitigation measures are required.

2) 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 Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

Less Than Significant Impact With Mitigation Incorporated. The project site exists within a highly developed area and has been completely disturbed. The presence of subsurface tribal cultural resources is not expected as the project site has been previously disturbed by prior development and has previously been subject to archaeological monitoring in 2006 for the Qwest Network Construction Project to the south. As indicated above, the City of Orange distributed letters to the following potentially affected Native American tribes for consultation regarding the proposed project in accordance with AB 52: Torrez Martinez Desert Cahuilla Indians; San Gabriel Band of Mission Indians; and Gabrieleno Band of Mission Indians – Kizh Nation. The tribes had 30 days to respond to the City's request for consultation. The Gabrieleno Band of Mission Indians – Kizh Nation responded to the City's request for consultation and requested consultation in any ground disturbance conducted as part of the project. Per consultations, although not specifically identified at the project site, the City acknowledges the potential presence of Tribal Cultural Resources (TCRs) in the City. As such, in the event that project excavation uncovers previously undiscovered buried TCRs, Mitigation Measures TCR-1 through TCR-3 would ensure a Native American monitor is present during all ground-disturbing activities and an appropriate course of action is implemented to evaluate and preserve the potential TCR. Following implementation of Mitigation Measures TCR-1 through TCR-3, the project would not significantly impact TCRs. Impacts in this regard would be reduced to less than significant levels.

Mitigation Measures:

TCR-1 A Native American monitor from a tribe who is ancestrally related to the project area (i.e., Native American Monitors of Gabrieleno Ancestry) shall be retained by the applicant to be on-site to monitor all project-related, ground-disturbing construction activities (e.g. pavement removal, auguring, boring, grading, excavation, potholing, trenching, grubbing, and weed abatement) and during all soil movement of previously undisturbed soils. The monitor must be approved by the Tribal Representatives of the

Gabrieleno Band of Mission Indians – Kizh Nation (Tribe) and will be represented on-site during the construction phases that involve any ground-disturbing activities. The Native American monitor(s) are required to complete monitoring logs on a daily basis. The logs will provide descriptions of the daily activities, including construction activities, locations, soil, and any cultural materials. Should there be any hazardous concerns; the monitor(s) shall possess Hazardous Waste Operations and Emergency Response certification. In addition, the monitor(s) shall be required to provide insurance certificates, including liability insurance, for any archaeological resource(s) encountered during grading and excavation activities pertinent to the provisions outlined in the California Environmental Quality Act (CEQA). The on-site monitoring shall end when either the project site grading and excavation activities are complete or the Tribal Representative and monitor have indicated the site has a low potential for archaeological resources.

TCR-2 All archaeological resources unearthed by project construction activities shall be evaluated by the qualified archaeologist and Native American monitor. If the resources are Native American in origin, the Tribe shall coordinate with the landowner regarding treatment and curation of these resources. Typically, the Tribe will request reburial or preservation for educational purposes. If a resource is determined by the qualified archaeologist to constitute a "historical resource" pursuant to CEQA Guidelines Section 15064.5(a) or is a "unique archaeological resource" pursuant to Public Resource Code (PRC) Section 21083.2(g), the qualified archaeologist shall comply with Mitigation Measure CUL-1. If the resource(s) are not "unique" then no further mitigation would be required.

TCR-3 Prior to the start of ground-disturbing activities, the applicant shall designate a feasible location within the project footprint for the respectful reburial of any human remains and/or ceremonial objects discovered on-site.

In the event of the discovery of human remains which are determined by the County Coroner to be Native American, the discovery is to be kept confidential and secured to prevent any further disturbance. In the case where discovered human remains cannot be fully documented and recovered on the same day, the remains shall be covered with muslin cloth and a steel plate that can be moved by heavy equipment placed over the excavation opening to protect the remains. If this type of steel plate is not available, a 24-hour guard shall be posted outside of working hours.

The preferred method of treatment for any discovery of Native American remains on-site is preserving the remains in situ and protected. If the project cannot be diverted to preserve the remains in place, the Tribe shall work closely with the qualified archaeologist to develop a treatment plan for a careful, ethical and respectful excavation of the discovered remains. The treatment plan will include, but is not limited to, data recovery methods and removal and reburial procedures. Once complete, a final report of all activities shall be submitted to the Tribe and the Native American Heritage Commission (NAHC). There shall be no publicity regarding any cultural materials recovered.

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4.18 UTILITIES AND SERVICE SYSTEMS

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?			✓	
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?			✓	
c. Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?			✓	
d. Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?			✓	
e. Result in a determination by the wastewater treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?			✓	
f. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?			✓	
g. Comply with federal, state, and local statutes and regulations related to solid waste?			✓	
h. Have significant effects on energy resources as described in Appendix F of the State CEQA Guidelines?			✓	

a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

Less Than Significant Impact. The Regional Water Quality Control Board (RWQCB), Santa Ana Region, issued a National Pollutant Discharge Elimination System (NPDES) permit, which includes the City as a Permittee. The NPDES permit implements Federal and State law governing point source discharges (a municipal or industrial discharge at a specific location or pipe) and nonpoint discharges (diffuse runoff of water from adjacent land uses) to surface waters of the United States.

The project site is currently developed, and the City provides wastewater collection services to the project site. The City of Orange Public Works department maintains 308 miles of basic sewer collection pipelines that convey wastewater to the Orange County Sanitation District (OCSD) trunk sewers. Wastewater generated in the City is treated by OCSD at its two wastewater treatment facilities: Reclamation Plant No. 1, located in the city of Fountain Valley, and Reclamation Plant No. 2, located in the City of Huntington Beach. Reclamation Plant No. 1 has a treatment capacity of 182 million gallons per day (mgd) for average daily flows (ADF), and 274 mgd for peak wet weather flows (PWWF). Reclamation Plant No. 2 has a treatment capacity of 150 mgd for ADF

and 317 mgd for PWWF. Together, the two plants currently treat approximately 185 mgd.[1] Thus, there is substantial remaining capacity for wastewater treatment at the OCSD plants for future development projects.

The proposed project would result in the demolition of the existing 8,579 square-foot restaurant building and surface parking lots and constructing a new 4,563 square-foot drive-thru restaurant. The project would connect to the existing 8-inch sanitary sewer pipeline in West Almond Avenue. The project is not expected to exceed wastewater requirements of the RWQCB, as the City and the OCSD would ensure the project meets all State and Federal wastewater treatment requirements and the project site was previously served by a restaurant use. As part of any new development project, the City would charge a standard sewer connection fee that assists in ensuring that sufficient capacity is available and that the wastewater treatment requirements of the RWQCB are met. Thus, upon payment of sewer connection fees, impacts in this regard would be less than significant.

The project is also subject to compliance with on-site sewer cleaning requirements. Municipal Code Chapter 13.66, Fats, Oils and Grease Regulations (FOG), enhances beneficial public use of the City's sewer facilities; prevents blockages of sewer lines resulting from discharges of fats, oils and grease, and other constituents to the sewer facilities; and specifies appropriate FOG discharge requirements for food service establishments. Thus, upon compliance with all State and Federal wastewater treatment requirements as well as on-site sewer cleaning requirements, project implementation would not cause an exceedance of wastewater treatment requirements and impacts in this regard would be less than significant.

Mitigation Measures: No mitigation measures are required.

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?

Less Than Significant Impact. The City of Orange Water Division provides water service to over 139,000 residents within the City's 32-square-mile planning area.[2] The proposed project would connect new 2-inch PVC water lines to the existing 10-inch water line located within South Main Street. The project would also connect a new 4-inch to 6-inch sewer line to the existing 8-inch sewer main located within West Almond Avenue.[3] The project's potential impacts to the environment, including activities associated with new water or wastewater infrastructure to serve the project, are analyzed within this IS/MND. No new off-site water or wastewater treatment facilities are proposed, nor are existing facilities proposed to be expanded.

Municipal Code Section 13.56.090, Charges for Sewer Mains or Extensions, imposes a sewer main connection fee on non-residential development in the City as a condition precedent to the issuance of a building permit to fund a project's fair share of costs to upgrade the City's sewer system. Additionally, the proposed project would be required to pay ongoing user fees. Payment of these fees would fund improvements and upgrades to the City's sewer lines, as needed, and would offset the project's increase in demand for wastewater collection services. Following

1 CDM Smith, Project No. SP-173, Effluent Reuse Study, GWRS Final Expansions Final Implementation Plan, Volume 1 of 3, October 21, 2016.

2 City of Orange, 2015 Urban Water Management Plan, prepared by Arcadis, June 2016.

3 The exact size of the sewer line would be determined by the plumbing plans based on the number of fixture units.

compliance with the relevant laws, ordinances, and regulations, as well as the specified mitigation measures identified in this IS/MND, it is not anticipated that water or wastewater facilities would be required to serve the project that would result in a significant environmental effect. Refer to Response 4.18(d), below, for a discussion of water supply impacts.

Mitigation Measures: No mitigation measures are required.

c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

Less Than Significant Impact. Existing onsite runoff sheet flows from the north and east to an opening in the existing block wall at the southwest corner of the site. Under existing conditions, this opening is undersized and causes water ponding on-site. The runoff is collected in a grated inlet on the property adjacent to the south and then flows south to an existing storm drain in Palmyra Avenue, which is conveyed to the Orange County storm drain system that discharges runoff to the Santa Ana River. Under existing conditions, this opening is undersized and causes water ponding on-site.

The proposed project would follow a similar drainage pattern. Low flows would be collected by three 24-inch by 24-inch grated inlets that would flow into an underground infiltration system. The infiltration chambers would be sized and designed to capture the required storm capture volume, which, for the project site, is the first 0.8 inches of rainfall for all storm events. Infiltration chambers would infiltrate the receiving runoff within 48 hours. For overflows that exceed the design capacity of the underground storage tanks, a bypass system would be installed that would outlet to an existing 12-inch storm drain at the southwest portion of the project site, which would then flow off-site onto the property to the south (similar to existing conditions) via a 12-inch storm drain, and ultimately into the City's storm drain system via an existing catch basin. The proposed underground infiltration system would alleviate the existing ponding issue on-site for the first 0.8 inches of rainfall. Should increased rainfall occur, ponding would be similar to existing conditions. The project would also sawcut and remove interfering sections of existing curb and gutter at the northern portion of the project site along Almond Avenue and the eastern portion of the project site along South Main Street for the purposes of driveway area. Former driveway locations would be replaced with new curb and gutter. Upon project completion, improvements along Almond Avenue and South Main Street would still facilitate stormwater along the existing storm drain system, similar to existing conditions.

No off-site storm water drainage facilities or expansion of existing storm water drainage facilities are proposed, as existing facilities are adequate to serve the project site. Only minor curb and gutter improvements are proposed along Almond Avenue and South Main Street. Curb and gutter improvements would be constructed in accordance with City of Orange Standard Plan 117 requirements. The project's potential environmental impacts, including activities associated with utility systems and improvements to serve the project, are analyzed within this IS/MND. Following compliance with the relevant laws, ordinances, and regulations, as well as the specified mitigation measures identified in this IS/MND, the project would have a less than significant impact to stormwater drainage facilities.

Mitigation Measures: No mitigation measures are required.

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

Less Than Significant Impact. The City of Orange provides water service and would serve the project site. The City of Orange receives its water from two main sources: groundwater from the Lower Santa Ana River Groundwater Basin, which is managed by the Orange County Water District (OCWD) and imported water from the Metropolitan Water District of Southern California through Municipal Water District of Orange County (MWDOC).[4] Groundwater is pumped from 15 active wells in the City. According to the City of Orange's *2015 Urban Water Management Plan*, the City currently relies on approximately 6,514-acre feet per year (AFY) of imported water purchased from Metropolitan and 20,372 AFY of groundwater from the Lower Santa Ana River Groundwater Basin. Additionally, the City relied on 1,757-acre feet (AF) of surface water purchased through Serrano Water District in 2015.

The UWMP includes an analysis of water supply reliability projected through 2040. The City of Orange's total water demand for 2015 was determined to be approximately 28,643 AF. Development of the project would result in an estimated annual water demand of approximately 1.38 million gallons (4.24 AFY); refer to Appendix 8.1, *Air Quality/Greenhouse Gas Data*. The project's estimated annual water demand of 4.24 AFY would represent less than one percent of the City's total water demand of 28,000 AFY for 2020 and 29,500 AFY for 2040. Thus, based on the UWMP, there is adequate water supply to meet the needs of the project.

Further, the UWMP determined that the City would be capable of providing adequate water supply to its service area under a normal supply and demand scenario, single dry-year supply and demand scenario, and multiple dry-year supply and demand scenarios through 2040. The UWMP water supply predictions is based on existing General Plan designations and accounts for increased demand as growth within the City occurs. As the amended General Plan land use designation (General Commercial [CG]) is less intense than the current designation (Neighborhood Mixed Use [NMIX]), the proposed project's water demand and sewer generation has been accounted for in the projections in the UWMP. Therefore, the UWMP demonstrates that adequate supply is available to serve the City and the proposed project through the long-range year of 2040.

In addition, the project would be designed such that it fully conforms with the regulations for water efficiency identified in the California Building Standards Code (California Code of Regulations, Title 24), Part 5, California Plumbing Code; and Part 11, California Green Building Standards Code. The project would also be subject to conformance with the City's Water Conservation and Water Supply Shortage Program, which enforces permanent water reduction and landscape water efficiency measures; refer to Municipal Code Chapter 7.02, Water Conservation and Water Supply Shortage. As such, impacts in this regard would be less than significant.

Mitigation Measures: No mitigation measures are required.

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

Less Than Significant Impact. Refer to Response 4.18(a).

4 City of Orange, *2015 Urban Water Management Plan*, prepared by Arcadis, June 2016.

Mitigation Measures: No mitigation measures are required.

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

Less Than Significant Impact. The City of Orange, which includes the project site is served by the following solid waste facilities and landfills: Frank R. Bowerman Sanitary Landfill, Olinda Alpha Sanitary Landfill, and Prima Deschecha Sanitary Landfill. The Frank R. Bowerman Sanitary Landfill has a total permitted capacity of 266,000,000 cubic yards, with a remaining capacity of 205,000,000 cubic yards of solid waste, and allows 11,500 tons per day of permitted throughput and has an estimated closure date of December 31, 2053.[5] The Olinda Alpha Sanitary Landfill has a total permitted capacity of 148,800,000 cubic yards, with a remaining capacity of 34,200,000 cubic yards of solid waste, and allows 8,000 tons per day of permitted throughput and has an estimated closure date of December 31, 2021.[6] The Prima Deschecha Sanitary Landfill has a total permitted capacity of 172,900,000 cubic yards, with a remaining capacity of 87,384,799 cubic yards of solid waste, and allows 4,000 tons per day of permitted throughput and has an estimated closure date of December 31, 2067.[7]

The proposed project would result in the generation of solid waste during the demolition and construction process, in addition to solid waste generated by restaurant tenants and customers during long-term operations. Construction activities would involve the removal of the 8,579 square foot existing restaurant structure and approximately 0.74 acres of asphalt associated with the parking and driveway areas. As discussed in Section 4.8, *Hazards and Hazardous Materials*, asbestos-containing materials (ACMs) and lead based paints (LBP) were found within the existing structure. The applicant would be required to dispose of the materials at an approved facility in accordance with State laws and regulations regarding the disposal of hazardous materials.

During operations, the project is projected to result in 27.4 pounds per day of solid waste generation.[8] The project's estimated 27.4 pounds per day (0.01 tons per day) of solid waste generation would represent less than one percent of the combined maximum daily throughput of the City's three primary solid waste facilities (23,500 tons per day). The three landfills have remaining capacities substantially greater than the project's estimated solid waste generation. The project would be subject to compliance with Municipal Code Section 8.28, *Garbage*, including collection per City regulations and mandatory recycling of construction and demolition waste. As the project would only nominally contribute to the daily tons per day of solid waste disposal as discussed above, impacts in this regard would be less than significant.

Mitigation Measures: No mitigation measures are required.

5 CalRecycle official website, *Facility/Site Summary Details: Frank R. Bowerman Sanitary LF (30-AB-0360)*, http://www.calrecycle.ca.gov/SWFacilities/Directory/30-AB-0360/Detail/, accessed May 10, 2018.

6 CalRecycle official website, *Facility/Site Summary Details: Olinda Alpha Sanitary Landfill (30-AB-0035),* http://www.calrecycle.ca.gov/SWFacilities/Directory/30-AB-0035/Detail/, accessed May 10, 2018.

7 CalRecycle official website, *Facility/Site Summary Details: Prima Deschecha Sanitary Landfill (30-AB-0019)*, http://www.calrecycle.ca.gov/SWFacilities/Directory/30-AB-0019/Detail/, accessed May 10, 2018.

8 General Plan PEIR, Table 5.12-9, *Estimated Current and Future Solid Waste Generation*, page. 5.12-31, states that commercial uses generate 6 pounds per thousand square feet per day [{4,563 x 6} / 1,000 = 27.4 pounds per day].

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

Less Than Significant Impact. AB 939 requires that local jurisdictions divert at least 50 percent of all solid waste generated by January 1, 2000. SB 2202 clarified that local governments shall continue to divert 50 percent of all solid waste on and after January 1, 2000. SB 1016 introduced a per capita disposal measurement system that measures the 50 percent diversion requirement using a disposal measurement equivalent. For the 2016 reporting year, the City's per Resident Disposal Rate was 5.9 pounds per day and Per Employee Disposal Rate was 7.2 pounds per day, which were less than the City's Disposal Rate Targets of 10.1 pounds per day per Resident and 14.4 pounds per day per Employee.[9]

Notwithstanding, the proposed project would be required to comply with the AB 939 50 percent diversion requirement, including Municipal Code Section 8.28. Continued compliance with State regulation would ensure that the proposed project would have less than significant impacts in this regard.

Mitigation Measures: No mitigation measures are required.

h) Have significant effects on energy resources as described in Appendix F of the State CEQA Guidelines?

Less Than Significant Impact. Energy usage is typically quantified using the British Thermal Unit (BTU). Total energy usage in California was 7,830 trillion BTU's in 2016 (the most recent year for which this specific data is available), which equates to an average of 199 million BTU's per capita. Of California's total energy usage, the breakdown by sector is 39 percent transportation, 24 percent industrial, 19 percent commercial, and 18 percent residential. Electricity and natural gas in California are generally consumed by stationary users such as residences and commercial and industrial facilities, whereas petroleum consumption is generally accounted for by transportation-related energy use.[10] In 2017, taxable gasoline sales (including aviation gasoline) in California accounted for 15,540,154,774 gallons of gasoline.[11]

The electricity consumption attributable to Orange County from 2007 to 2016 is shown in Table 4.18-1, *Electricity Consumption in Orange County 2007-2016*. As indicated in Table 4.18-1, energy consumption in Orange County remained relatively constant between 2007 and 2016, with no substantial increase.

Table 4.18-1
Electricity Consumption in Orange County 2007-2016

Year	Electricity Consumption (in millions of kilowatt hours)
2007	21,096
2008	21,514
2009	20,651
2010	19,788

9 CalRecycle, *Countywide, Regionwide, and Statewide Jurisdiction Diversion/Disposal Progress Report,* http://www.calrecycle.ca.gov/lgcentral/Reports/jurisdiction/diversiondisposal.aspx, accessed May 10, 2018.

10 U.S. Energy Information Administration, *California State Profile and Energy Estimates*, https://www.eia.gov/state/print.php?sid=CA, accessed October 3, 2018.

11 California Department of Tax and Fee Administration, *Fuel Taxes Statistics and Report: Net Taxable Gasoline Gallons*, http://www.cdtfa.ca.gov/taxes-and-fees/MVF-10-Year-Report.pdf, accessed October 3, 2018.

Table 4.18-1, continued

Year	Electricity Consumption (in millions of kilowatt hours)
2011	20,009
2012	20,620
2013	20,389
2014	20,827
2015	20,927
2016	20,391

Source: California Energy Commission, *Electricity Consumption by County*, http://www.ecdms.energy.ca.gov/, accessed October 3, 2018.

The natural gas consumption attributable to Orange County from 2007 to 2016 is shown in Table 4.18-2, *Natural Gas Consumption in Orange County 2007-2016*. Similar to energy consumption, natural gas consumption in Orange County remained relatively constant between 2007 and 2016, with no substantial increase.

Table 4.18-2
Natural Gas Consumption in Orange County 2007-2016

Year	Natural Gas Consumption (in millions of therms)
2007	643
2008	632
2009	611
2010	635
2011	639
2012	612
2013	636
2014	544
2015	544
2016	569

Source: California Energy Commission, *Gas Consumption by County*, http://www. ecdms.energy.ca.gov/, accessed August 14, 2018.

Automotive fuel consumption in Orange County from 2007 to 2017 is shown in Table 4.18-3, *Automotive Fuel Consumption in Orange County 2007-2018* (projections for the year 2018 are also shown). As shown in Table 4.18-3, on-road automotive fuel consumption in Orange County has declined steadily, since 2007.

Table 4.18-3
Automotive Fuel Consumption in Orange County 2007-2018

Year	On-Road Automotive Fuel Consumption (Gallons)	Heavy-Duty Vehicle/ Diesel Fuel Consumption (Gallons)
2007	1,423,778,297	140,962,964
2008	1,365,076,979	130,526,813
2009	1,357,149,650	118,572,627
2010	1,363,676,577	121,946,393
2011	1,349,691,464	128,731,296
2012	1,323,464,829	132,391,898
2013	1,309,170,033	136,506,102

Table 4.18-3, continued

Year	On-Road Automotive Fuel Consumption (Gallons)	Heavy-Duty Vehicle/ Diesel Fuel Consumption (Gallons)
2014	1,310,499,602	140,126,848
2015	1,302,220,609	146,075,106
2016	1,295,517,278	151,612,836
2017	1,280,170,453	155,501,327
2018 (projected)	1,248,703,310	159,431,547

Source: California Air Resources Board, EMFAC2014.

ENERGY CONSUMPTION

Energy consumption associated with the proposed project is summarized in Table 4.18-4, *Energy Consumption*. As shown in Table 4.18-4, the electricity usage as a result of the project would constitute an approximate 0.001 percent increase over Orange County's typical annual electricity consumption and an approximate 0.002 percent increase in the typical annual natural gas consumption in Orange County.

Table 4.18-4
Energy Consumption

Energy Type	Project Annual Energy Consumption	Orange County Annual Energy Consumption[2]	Percentage Increase Countywide[2]
Electricity Consumption	173 MWh	20,391,000 MWh	0.001%
Natural Gas Consumption	11,833 therms	569,000,000 therms	0.002%
Fuel Consumption			
• Construction (Heavy-Duty Diesel Vehicle) Fuel Consumption[3]	21,148	159,431,547 gallons	0.0001%
• Operational Automotive Fuel Consumption[3]	89,872	1,248,703,310 gallons	0.01%

Notes:

1. As modeled in CalEEMod version 2016.3.2.
2. The project increases in electricity and natural gas consumption are compared with the total consumption in Orange County in 2016. The project increases in automotive fuel consumption are compared with the projected Countywide fuel consumption in 2018.
3. Project fuel consumption calculated based on CalEEMod results. Countywide fuel consumption is from the California Air Resources Board EMFAC2014 model.

CONSTRUCTION-RELATED ENERGY CONSTRUCTION

During construction, the project would consume energy in two general forms: (1) the fuel energy consumed by construction vehicles and equipment; and (2) bound energy in construction materials, such as asphalt, steel, concrete, pipes, and manufactured or processed materials such as lumber and glass.

As indicated in Table 4.18-4, the overall fuel consumption would be 21,148 gallons for the proposed project, which would result in a nominal increase (0.0001 percent) in fuel use in Orange County. As such, project construction would have a minimal effect on the local and regional energy supplies.

OPERATIONAL ENERGY CONSUMPTION

Transportation Energy Demand

Pursuant to the Federal Energy Policy and Conservation Act of 1975, the National Highway Traffic and Safety Administration (NTSA) is responsible for establishing additional vehicle standards and for revising existing standards. Compliance with Federal fuel economy standards is not determined for each individual vehicle model. Rather, compliance is determined based on each manufacturer's average fuel economy for the portion of their vehicles produced for sale in the United States. Table 4.18-4 provides an estimate of the daily fuel consumed by vehicles traveling throughout the City. As indicated in Table 4.18-4, project operations are estimated to consume approximately 89,872 gallons of fuel per year, which would increase Countywide automotive fuel consumption by 0.01 percent. The project would not result in any unusual characteristics that would result in excessive long-term operational fuel consumption. Fuel consumption associated with vehicle trips generated by the project would not be considered inefficient, wasteful, or unnecessary in comparison to other similar developments in the region.

Building Energy Demand

The proposed project would be expected to demand approximately 173 million kilowatt hours (kWh) of electricity per year and approximately 11,833 therms of natural gas per year. The proposed project would be required to comply with Title 24 Building Energy Efficiency Standards, which provide minimum efficiency standards related to various building features, including appliances, water and space heating and cooling equipment, building insulation and roofing, and lighting. Implementation of the Title 24 standards significantly reduces energy usage. Furthermore, the electricity provider, Southern California Edison (SCE), is subject to California's Renewables Portfolio Standard (RPS). The RPS requires investor-owned utilities, electric service providers, and community choice aggregators to increase procurement from eligible renewable energy resources to 33 percent of total procurement by 2020 and to 50 percent of total procurement by 2030. Renewable energy is generally defined as energy that comes from resources which are naturally replenished within a human timescale such as sunlight, wind, tides, waves, and geothermal heat. The increase in reliance of such energy resources further ensures projects will not result in the waste of the finite energy resources.

As indicated in Table 6-4, operational energy consumption would represent an approximate 0.001 percent increase in electricity consumption and 0.002 percent increase in natural gas consumption over the current Countywide usage. The project would adhere to all Federal, State, and local requirements for energy efficiency, including the Title 24 standards. As such, the project would not result in the inefficient, wasteful, or unnecessary consumption of building energy.

CONCLUSION

As shown in Table 4.18-4, the increase in electricity, natural gas, and automotive fuel consumption over existing conditions is minimal. The increase in operational automotive fuel consumption is approximately 0.01 percent over Orange County. For the reasons described above, implementation of the proposed project would not place a substantial demand on regional energy supply or require significant additional capacity, or significantly increase peak and base period electricity demand, or cause wasteful, inefficient, and unnecessary consumption of energy during operations, and/or maintenance, or preempt future energy development or future energy conservation. A less than significant impact would occur in this regard.

Mitigation Measures: No mitigation measures are required.

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4.19 MANDATORY FINDINGS OF SIGNIFICANCE

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?		✓		
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)?		✓		
c. Does the project have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly?		✓		

a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

Less Than Significant Impact With Mitigation Incorporated. The project site is within a developed urbanized area, and there are no rare, endangered, or threatened plants and animal species within the project site. Since available nesting habitat is typically limited to the perimeter trees surrounding the project site, the proposed project could result in potential impacts to nesting birds protected by the Migratory Bird Treaty Act (MBTA). As such, Mitigation Measure BIO-1 has been incorporated to minimize potential impacts to nesting birds.

As noted above within Section 4.5, *Cultural Resources*, and Section 4.17, *Tribal Cultural Resources*, the site exists within a highly developed area and the project site has been completely disturbed as a result of the existing on-site structure. No known cultural or tribal cultural resources exist within the boundaries of the site. Although it is not expected that cultural or tribal cultural resources would be encountered during construction, the project would require excavation. As such, Mitigation Measures CUL-1, CUL-2, and TCR-1 through TCR-3 have been provided in the unlikely event archeological, paleontological, or tribal cultural resources are discovered during the grading and excavation process. Upon implementation of the Mitigation Measures CUL-1, CUL-2, TCR-1, TCR-2, and/or TCR-3, impacts would be reduced to less than significant levels.

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

Less Than Significant Impact With Mitigation Incorporated. As noted within Section 4.0, *Environmental Analysis*, impacts related to the proposed project would be less than significant with implementation of standard conditions and mitigation measures. Although the project may incrementally affect other resources that were determined to be less than significant, the project's contribution to these effects is not considered "cumulatively considerable," in consideration of the relatively nominal impacts of the project and mitigation measures provided. Thus, impacts in this regard would be less than significant.

c) Does the project have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly?

Less Than Significant Impact With Mitigation Incorporated. Previous sections of this Initial Study reviewed the proposed project's potential impacts related to aesthetics, air pollution, noise, greenhouse gas emissions, geology and soils, and other issues. Standard conditions and mitigation measures have been incorporated into the project that would reduce the potential adverse impacts on human beings to a less than significant level. Therefore, with implementation of standard conditions and mitigation measures, the proposed project would not result in environmental impacts that would cause substantial adverse effects on human beings.

5.0 INVENTORY OF MITIGATION MEASURES

AIR QUALITY

AQ-1 Prior to issuance of any Grading Permit, the City Engineer shall confirm that the Grading Plan and specifications stipulate that, in compliance with SCAQMD Rule 403, excessive fugitive dust emissions shall be controlled by regular watering or other dust prevention measures, as specified in the SCAQMD's Rules and Regulations. In addition, the City Engineer shall confirm that the Grading Plans and specifications comply with SCAQMD Rule 402, which requires implementation of dust suppression techniques to prevent fugitive dust from creating a nuisance off-site. The following measures shall be implemented to reduce short-term fugitive dust impacts on nearby sensitive receptors:

- All active portions of the construction site shall be watered during daily construction activities and when dust is observed migrating from the project site to prevent excessive amounts of dust. The Applicant shall submit a watering plan to control fugitive dust;
- Pave or apply water every three hours during daily construction activities or apply non-toxic soil stabilizers on all unpaved access roads, parking areas, and staging areas. More frequent watering shall occur if dust is observed migrating from the site during site disturbance;
- Any on-site stockpiles of debris, dirt, or other dusty material shall be enclosed, covered, or watered twice daily, or non-toxic soil binders shall be applied;
- All grading and excavation operations shall be suspended when wind speeds exceed 25 miles per hour;
- Disturbed areas shall be replaced with ground cover or paved immediately after construction is completed in the affected area;
- Track-out devices such as gravel bed track-out aprons (3 inches deep, 25 feet long, 12 feet wide per lane and edged by rock berm or row of stakes) shall be installed to reduce mud/dirt trackout from unpaved truck exit routes. Alternatively, a wheel washer shall be used at truck exit routes;
- On-site vehicle speeds shall be limited to 15 miles per hour;
- All material transported off-site shall be either sufficiently watered or securely covered to prevent excessive amounts of dust prior to departing the job site; and
- Trucks associated with soil-hauling activities shall avoid residential streets and utilize City-designated truck routes to the extent feasible.

BIOLOGICAL RESOURCES

BIO-1 In the event that vegetation and tree removal should occur between January 15 and September 15, the project applicant shall retain a qualified biologist to conduct a nesting bird survey no more than three days prior to commencement of construction activities. The biologist conducting the clearance survey shall document the negative results if no active bird nests are observed on the project site or within the vicinity during the clearance survey with a brief letter report, submitted to the City of Orange Community Development Department prior to construction, indicating that no impacts to active bird nests would occur before construction can proceed. If an active avian nest is discovered during the pre-construction clearance survey, construction activities shall stay outside of a 300-foot buffer around the active nest. For listed and raptor species, this buffer shall be 500 feet. A biological monitor shall be present to delineate the boundaries of the buffer area and to monitor the active nest to ensure that nesting behavior is not adversely affected by the construction activity. Prior to the commencement of construction activities and the issuance of any permits, results of the pre-construction survey and any subsequent monitoring shall be provided to the City of Orange Community Development Department, California Department of Fish and Wildlife and other appropriate agencies.

CULTURAL RESOURCES

CUL-1 Prior to the issuance of a grading permit, the Applicant shall provide written evidence to the Community Development Department that the Applicant has retained a qualified archaeologist meeting the Secretary of the Interior's Professional Qualification Standards for archaeology (National Park Service 1983) to respond on an as-needed basis to address unanticipated archaeological discoveries.

In the event that archaeological resources are encountered during ground-disturbing activities, work in the immediate area shall be halted, and the qualified archaeologist shall be contacted immediately to evaluate the resources. If the archaeologist determines that they are unique archaeological resources as defined by Public Resources Code Section 21083.2, the archaeologist shall make recommendations on the treatment of the resources. The recommendations shall be developed in accordance with applicable provisions of Public Resources Code Section 21083.2 and CEQA Guidelines 15064.5 and 15126.4. The Applicant shall follow all recommendations made by the archaeologist. The final written report containing site forms, site significance, and mitigation measures shall be submitted immediately to the Community Development Department. All information regarding site locations, Native American human remains, and associated funerary objects shall be provided in a separate confidential addendum and not be made available for public disclosure. The final written report shall be submitted to the appropriate regional archaeological Information Center within three months after work has been completed.

CUL-2 Prior to the issuance of a grading permit, the Applicant shall provide written evidence to the Community Development Department that the Applicant has retained a qualified paleontologist (B.S./B.A. in geology, or related discipline with an emphasis in paleontology and demonstrated experience and competence in paleontological research, fieldwork, reporting, and curation) to respond on an as-needed basis to address unanticipated archaeological discoveries.

In the event that paleontological resources are encountered during ground-disturbing activities, all construction activities in the vicinity of the find shall halt until the qualified paleontologist identifies the paleontological significance of the find and recommends a course of action. Construction shall not resume until the site paleontologist states in writing that the proposed construction activities would not significantly damage paleontological resources.

HAZARDS AND HAZARDOUS MATERIALS

HAZ-1 Prior to the issuance of a grading permit, the applicant shall provide written evidence to the Community Development Department that the applicant has retained a qualified Phase II/Site Characterization Specialist to perform soil sampling of all export and import soils to confirm no hazardous materials contamination is present. Should contamination be present above regulatory thresholds, use of those soils shall be conducted in accordance with existing Federal, State, and local laws and regulations.

HAZ-2 Grading plans, approved by the City Engineer, shall indicate that prior to and during structure demolition, a licensed asbestos technician shall perform abatement planning, monitoring, oversight, and reporting. Visual inspection clearance shall be completed by the licensed asbestos technician prior demolition to ensure asbestos materials have been removed from the structure.

HAZ-3 Grading plans, approved by the City Engineer, shall indicate that prior to, and during structure demolition, a lead certified professional shall conduct in-place management work of lead based materials surfaces reported above the Occupational Safety and Health Administration (OSHA) Limit of Detection and are scheduled for demolition, and ensure proper preparation, abatement, and disposal.

NOISE

NOI-1 Prior to the issuance of a grading permit, the Applicant shall demonstrate, to the satisfaction of the Orange Public Works Department that the project complies with the following:

- Construction contracts specify that all construction equipment, fixed or mobile, shall be equipped with properly operating and maintained mufflers and other state required noise attenuation devices.
- Construction haul routes shall be designed to avoid noise sensitive uses (e.g., residences, convalescent homes, etc.), to the extent feasible.
- During construction, stationary construction equipment shall be placed such that emitted noise is directed away from sensitive noise receivers.
- Construction activities shall not take place outside of the allowable hours specified by the City's OMC, Section 8.24.050 (7:00 a.m. and 8:00 p.m. on any day except for Sunday or a Federal holiday, or between the hours of 9:00 a.m. and 8:00 p.m. on Sunday or a Federal holiday. Noise generated outside of the hours specified are subject to the noise standards identified in City of Orange Municipal Code, Section 8.24.040).

TRANSPORTATION/TRAFFIC

TRA-1 The applicant shall implement the proposed on-site transportation circulation plan detailed in the *Updated On-Site Transportation Circulation Plan – Chick-fil-A Main Street, Orange*, dated May 20, 2019 and prepared by Linscott Law & Greenspan Engineers, which requires Chick-fil-A staff to monitor vehicle queuing in the drive-thru lanes to ensure queued vehicles do not block vehicular circulation within the parking lot and at the Almond Avenue driveway. Should queueing occur beyond the available vehicle storage (17 vehicles), team members shall go out to the drive-thru lanes and take orders with hand held ordering and payment devices to increase ordering and payment efficiency and reduce queues. Should the vehicle queue extend onto Almond Avenue, Chick-fil-A staff shall direct customers to utilize the Main Street access to enter the drive-thru lane. Chick-fil-A management shall also direct staff to park in the stalls closest to the drive-thru entrance along Almond Avenue, allowing stacking, if needed.

TRIBAL CULTURAL RESOURCES

TCR-1 A Native American monitor from a tribe who is ancestrally related to the project area (i.e., Native American Monitors of Gabrieleno Ancestry) shall be retained by the applicant to be on-site to monitor all project-related, ground-disturbing construction activities (e.g. pavement removal, auguring, boring, grading, excavation, potholing, trenching, grubbing, and weed abatement) and during all soil movement of previously undisturbed soils. The monitor must be approved by the Tribal Representatives of the Gabrieleno Band of Mission Indians – Kizh Nation (Tribe) and will be represented on-site during the construction phases that involve any ground-disturbing activities. The Native American monitor(s) are required to complete monitoring logs on a daily basis. The logs will provide descriptions of the daily activities, including construction activities, locations, soil, and any cultural materials. Should there be any hazardous concerns; the monitor(s) shall possess Hazardous Waste Operations and Emergency Response certification. In addition, the monitor(s) shall be required to provide insurance certificates, including liability insurance, for any archaeological resource(s) encountered during grading and excavation activities pertinent to the provisions outlined in the California Environmental Quality Act (CEQA). The on-site monitoring shall end when either the project site grading and excavation activities are complete or the Tribal Representative and monitor have indicated the site has a low potential for archaeological resources.

TCR-2 All archaeological resources unearthed by project construction activities shall be evaluated by the qualified archaeologist and Native American monitor. If the resources are Native American in origin, the Tribe shall coordinate with the landowner regarding treatment and curation of these resources. Typically, the Tribe will request reburial or preservation for educational purposes. If a resource is determined by the qualified archaeologist to constitute a “historical resource” pursuant to CEQA Guidelines Section 15064.5(a) or is a “unique archaeological resource” pursuant to Public Resource Code (PRC) Section 21083.2(g), the qualified archaeologist shall comply with Mitigation Measure CUL-1. If the resource(s) are not “unique” then no further mitigation would be required.

TCR-3 Prior to the start of ground-disturbing activities, the applicant shall designate a feasible location within the project footprint for the respectful reburial of any human remains and/or ceremonial objects discovered on-site.

In the event of the discovery of human remains which are determined by the County Coroner to be Native American, the discovery is to be kept confidential and secured to prevent any further disturbance. In the case where discovered human remains cannot be fully documented and recovered on the same day, the remains shall be covered with muslin cloth and a steel plate that can be moved by heavy equipment placed over the excavation opening to protect the remains. If this type of steel plate is not available, a 24-hour guard shall be posted outside of working hours.

The preferred method of treatment for any discovery of Native American remains on-site is preserving the remains in situ and protected. If the project cannot be diverted to preserve the remains in place, the Tribe shall work closely with the qualified archaeologist to develop a treatment plan for a careful, ethical and respectful excavation of the discovered remains. The treatment plan will include, but is not limited to, data recovery methods and removal and reburial procedures. Once complete, a final report of all activities shall be submitted to the Tribe and the Native American Heritage Commission (NAHC). There shall be no publicity regarding any cultural materials recovered.

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6.0 REFERENCES

The following references were utilized during preparation of this Initial Study.

1. 14 California Code of Regulations Section 15064.4(b).

2. 14 California Code of Regulations Section 15064.7.

3. CalRecycle official website, *Facility/Site Summary Details: Frank R. Bowerman Sanitary LF (30-AB-0360)*, http://www.calrecycle.ca.gov/SWFacilities/Directory/30-AB-0360/Detail/, accessed May 10, 2018.

4. CalRecycle official website, *Facility/Site Summary Details: Olinda Alpha Sanitary Landfill (30-AB-0035),* http://www.calrecycle.ca.gov/SWFacilities/Directory/30-AB-0035/Detail/, accessed May 10, 2018.

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7. California Air Resources Board, *California's 2017 Climate Change Scoping Plan*, November 2017, https://www.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf, accessed June 27, 2018.

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15. California Energy Commission, *Gas Consumption by County*, http://www.ecdms.energy.ca.gov/, accessed August 14, 2018.

16. California Environmental Protection Agency, *California Greenhouse Gas Emission Inventory - 2017 Edition*, http://www.arb.ca.gov/cc/inventory/data/data.htm, accessed June 6, 2018.

17. California Regional Water Quality Control Board Santa Ana Region, *Waste Discharge Requirements for the County of Orange, Orange County Flood Control District and the Incorporated Cities of Orange County within the Santa Ana Region Areawide Urban Storm Water Runoff Orange County*, May 22, 2009, https://www.waterboards.ca.gov/santaana/board_decisions/adopted_orders/orders/2009/09_030_OC_MS4_as_amended_by_10_062.pdf, accessed May 21, 2018.

18. California Regional Water Quality Control Board, Santa Ana Region, *Water Quality Control Plan for the Santa Ana River Basin (8)*, Table 3-1, January 24, 1995 (updated February 2016), https://www.waterboards.ca.gov/santaana/water_issues/programs/basin_plan/docs/2016/Chapter_3_Feb_2016.pdf, accessed May 21, 2018.

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