TUSTIN STREET/KATELLA AVENUE
RIGHT TURN LANE
AND
BUS TURNOUT PROJECT

DRAFT
MITIGATED NEGATIVE DECLARATION NO. ENV 1851-16

Lead Agency:
City of Orange
Community Development Department • Planning Division
300 East Katella Avenue
Orange, CA 92866-1591
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Date:
JANUARY 2017
# TABLE OF CONTENTS

Mitigated Negative Declaration ........................................................................................................... 1

1.0 Introduction .................................................................................................................................. 3

2.0 Project Description ....................................................................................................................... 5
  2.1 Project Location and Limits ......................................................................................................... 5
  2.2 Objectives and Need for the Project ........................................................................................... 5
  2.3 Existing Site Conditions ............................................................................................................... 5
  2.4 Project Characteristics ............................................................................................................... 6

3.0 Environmental Factors Potentially Affected and Environmental Determination .................... 13

4.0 Initial Study Checklist and Analysis of Environmental Impacts ................................................ 15
  4.1 Aesthetics .................................................................................................................................. 15
  4.2 Agriculture & Forestry Resources .............................................................................................. 18
  4.3 Air Quality ............................................................................................................................... 20
  4.4 Biological Resources ................................................................................................................ 30
  4.5 Cultural Resources .................................................................................................................... 33
  4.6 Geology and Soils ...................................................................................................................... 36
  4.7 Greenhouse Gas Emissions ......................................................................................................... 40
  4.8 Hazards and Hazardous Material .............................................................................................. 42
  4.9 Hydrology and Water Quality .................................................................................................. 61
  4.10 Land Use and Planning ............................................................................................................. 69
  4.11 Mineral Resources ................................................................................................................... 73
  4.12 Noise ...................................................................................................................................... 74
  4.13 Population and Housing .......................................................................................................... 78
  4.14 Public Services ......................................................................................................................... 79
  4.15 Recreation ............................................................................................................................... 81
  4.16 Transportation/Traffic ............................................................................................................. 82
  4.17 Utilities and Service Systems .................................................................................................. 85
  4.18 Mandatory Findings of Significance ......................................................................................... 88
  4.19 References ............................................................................................................................... 90

5.0 Mitigation Monitoring and Reporting Program ............................................................................. 91

6.0 Comments and Responses (in Final Document) ........................................................................... 101

Appendices

A. Air Quality Technical Memorandum
B. Phase I Environmental Site Assessment
LIST OF FIGURES

1  Project Vicinity Map ........................................................................................................9
2  Project Plan .....................................................................................................................11

LIST OF TABLES

2-1  Existing Intersection Conditions .....................................................................................6
2-2  Proposed Intersection Conditions ....................................................................................7
2-3  Affected Private Properties ............................................................................................7
4.3-1 South Coast Air Quality Management District Emissions Thresholds ......................20
4.3-2 Short-Term Construction Air Emissions .........................................................................24
4.3-3 Localized Significance of Emissions ............................................................................28
4.8-1 Historical Uses Summary ..............................................................................................45
# MITIGATED NEGATIVE DECLARATION

<table>
<thead>
<tr>
<th>Project Title:</th>
<th>Reference Application Number(s):</th>
</tr>
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<tbody>
<tr>
<td>Tustin Street/Katella Avenue Intersection</td>
<td>Mitigated Negative Declaration No. ENV 1851-16</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Lead Agency &amp; Address:</th>
<th>Contact Person &amp; Telephone No.:</th>
</tr>
</thead>
<tbody>
<tr>
<td>City of Orange</td>
<td>Jennifer Le</td>
</tr>
<tr>
<td>Community Development Department</td>
<td>Principal Planner/Environmental Review Coordinator</td>
</tr>
<tr>
<td>300 East Katella Avenue</td>
<td>714.744.7220</td>
</tr>
<tr>
<td>Orange, CA 92866</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Project Proponent &amp; Address:</th>
<th>Contact Person &amp; Telephone No.:</th>
</tr>
</thead>
<tbody>
<tr>
<td>City of Orange</td>
<td>Eduardo Lopez, P.E.</td>
</tr>
<tr>
<td>Public Works Department</td>
<td>Project Engineer</td>
</tr>
<tr>
<td>300 East Katella Avenue</td>
<td>Public Works Department</td>
</tr>
<tr>
<td>Orange, CA 92866</td>
<td>714.744.5553</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Project Location:</th>
<th>Zoning Classification:</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Tustin Street/Katella Avenue intersection is located approximately 1,220 feet west of the Costa Mesa Freeway (SR-55) in the City of Orange, County of Orange, California. The project limits consist of existing road right-of-way (ROW) and portions of adjacent privately-owned properties on the west side of Tustin Street from Katella Avenue extending approximately 263 feet north of its centerline and on the north side of Katella Avenue from Tustin Street to approximately 320 feet west of its centerline.</td>
<td>C-TR (Limited Business Tustin Redevelopment Project Area)</td>
</tr>
</tbody>
</table>
Initial Study/Mitigated Negative Declaration Prepared By:

Collette L. Morse, AICP, City of Orange, Consultant Planner

Date of Public Hearing by the Orange City Council:

The Orange City Council will consider approval of project plans and adoption of Mitigated Negative Declaration No. ENV 1851-16 at its regularly scheduled meeting on February 14, 2017 in the Orange City Council Chambers (located at 300 East Katella Avenue, Orange, CA) at 6:00 p.m. or as soon thereafter as the matter may be heard.

Required Agency Permits, Approvals, and Coordination:

The City of Orange (City) is the lead agency under the California Environmental Quality Act (CEQA), and is responsible for planning, partially funding, and implementing the proposed project. This environmental document is intended to meet the requirements of CEQA for all discretionary actions taken by the City related to the proposed project including, but not limited to, approval of preliminary project plans, approval of agreements related to ROW acquisition or utility relocations, approval of final plans and specifications, authorization to bid the project for construction, and authorization to award the construction contract.

The Orange County Transportation Authority (OCTA) is potentially a “Responsible Agency” under CEQA. The proposed project is funded through the Intersection Capacity Enhancement (ICE) program. Prior to construction, the City will coordinate with OCTA regarding the temporary closure and/or relocation of impacted bus stops.

If over the course of project construction, on-site contamination is encountered, the Orange County Health Care Agency, the Regional Water Quality Control Board (RWQCB), and/or the City of Orange Fire Department may have regulatory authority and oversight over remediation efforts.

The potential Responsible Agencies listed above (and any others identified over the course of the project) may use this environmental document for CEQA compliance purposes when a discretionary decision is made related to the project.

*
1.0. INTRODUCTION

The City of Orange Public Works Department is proposing to construct improvements to the Tustin Street/Katella Avenue intersection in the City of Orange, including a dedicated right turn lane from southbound Tustin Street to westbound Katella Avenue and a bus turnout on Katella Avenue. The proposed project would require acquisition of right-of-way (ROW) from adjacent commercially zoned property (refer to Section 2.0, Project Description).

The City has prepared this Initial Study/Mitigated Negative Declaration (IS/MND) to address and disclose the potential environmental effects of project implementation in compliance with the California Environmental Quality Act of 1970 (CEQA) and the Guidelines for the Implementation of the California Environmental Quality Act (CEQA Guidelines), Section 15000 et seq.

Pursuant to CEQA, this IS/MND will be circulated for public review for 20 days, beginning January 11, 2017 and ending on January 30, 2017. After the public review period, the Orange City Council will consider approval of this document and the proposed project at its regularly scheduled meeting on February 14, 2017. Written comments received during the public review period will be forwarded to the Orange City Council for consideration prior to making a decision on the proposed project. MND No. ENV 1851-16 will become final when the Orange City Council adopts the MND and approves the project, which completes the CEQA compliance process.
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2.0 PROJECT DESCRIPTION

2.1 PROJECT LOCATION AND LIMITS

The Tustin Street/Katella Avenue intersection is located approximately 1,220 feet west of the Costa Mesa Freeway (SR-55) in the City of Orange, County of Orange, California. The project limits consist of existing road right-of-way (ROW) and portions of adjacent privately-owned properties on the west side of Tustin Street from Katella Avenue extending approximately 263 feet north of its centerline and on the north side of Katella Avenue from Tustin Street to approximately 320 feet west of its centerline.

2.2 OBJECTIVE AND NEED FOR THE PROJECT

The Tustin Street/Katella Avenue intersection is one of the “critical intersections” identified in the City’s Master Plan of Streets and Highways. Due to a combination of limited roadway capacity, forecast high traffic and pedestrian volumes, and bus stops near the intersection, congestion and traffic delays are forecast to occur under future conditions.

The other three legs of this intersection have been widened, however a dedicated right turn pocket from southbound Tustin Street to westbound Katella Avenue is also needed to expedite traffic flow and reduce delay.

The proposed project would complete the widening of Tustin Street at Katella Avenue to the ultimate intersection configuration envisioned in the Orange General Plan. Together, the additional right turn pocket would improve the intersection’s overall operations and reduce congestion and traffic delays.

Tustin Street is a major commercial corridor within an urbanized portion of the City. The project area is bordered by commercial uses including restaurants, service commercial, and retail shops. The General Plan land use designation and zoning district for adjacent properties are GC (General Commercial) and C-TR (Limited Business Tustin Redevelopment Project Area District), respectively.

The Master Plan of Streets and Highways (Figure CM-2 of the Orange General Plan Circulation and Mobility Element) designates Tustin Street as a Major Arterial and Katella Avenue as a Smart Street in the project vicinity. The Tustin Street/Katella Avenue intersection is identified as a “critical intersection” in the City’s Critical Intersection Program (Figure CM-2). Critical intersections are intersections with high existing or future anticipated traffic volumes, where improvements are needed to accommodate the volumes. A critical intersection deviates from the established standard intersection design by increasing the number of lanes at the intersection beyond what typically would be required, thereby reducing delay.

2.3 EXISTING SITE CONDITIONS

Table 2-1, Existing Intersection Conditions, outlines the existing roadway configurations for Tustin Street and Katella Avenue. One bus stop is located in the project area on the north side of Katella Avenue approximately 240 feet west of Tustin Street. There is no curbside parking. Sidewalks, street trees/ornamental landscaping, water/electrical/telephone/cable utilities, and street/traffic lights are present.
### Table 2-1

#### Existing Intersection Conditions

<table>
<thead>
<tr>
<th>Description</th>
<th>Tustin Street</th>
<th>Katella Avenue</th>
</tr>
</thead>
<tbody>
<tr>
<td>Right-of-way (Feet)</td>
<td>North Leg: 110</td>
<td>West Leg: 120</td>
</tr>
<tr>
<td></td>
<td>West Leg: 120</td>
<td></td>
</tr>
<tr>
<td>Curb-to-Curb (Feet)</td>
<td>North Leg: 96</td>
<td>West Leg: 100</td>
</tr>
<tr>
<td></td>
<td>West Leg: 100</td>
<td></td>
</tr>
<tr>
<td>Lanes</td>
<td>North Leg:</td>
<td>West Leg:</td>
</tr>
<tr>
<td></td>
<td>- 3 lanes NB</td>
<td>- 3 lanes EB</td>
</tr>
<tr>
<td></td>
<td>- 2 lanes SB/DLT</td>
<td>- 2 lanes EB/DLT</td>
</tr>
<tr>
<td></td>
<td>- 2 lanes SB</td>
<td>- 1 lane DRT</td>
</tr>
<tr>
<td></td>
<td>- 1 lane SB/RT</td>
<td>- 3 lanes WB</td>
</tr>
<tr>
<td>OCTA Bus Stops</td>
<td>North Leg, West Side: none</td>
<td>West Leg, North Side: Route No. 50</td>
</tr>
</tbody>
</table>

**Notes:**
- NB = Southbound; SB = Southbound; EB = Westbound; WB = Westbound; LT = Left Turn; RT = Right Turn; DLT = Dedicated Left Turn; DRT = Dedicated Right Turn.

---

### 2.4 PROJECT CHARACTERISTICS

The City of Orange Public Works Department is proposing to add a dedicated right turn pocket on southbound Tustin Street at Katella Avenue and a bus turnout on the north side of Katella Avenue, as described in greater detail below.

**INTERSECTION IMPROVEMENTS**

The City proposes widening the northwestern quadrant of the Tustin Street/Katella Avenue intersection in order to accommodate a dedicated right turn pocket on southbound Tustin Street at Katella Avenue. The proposed widening would require acquisition of ROW from adjacent commercially zoned properties and would impact setbacks, landscaping, signage, parking, a commercial building, and public and private utilities. More specifically, the proposed project involves the following improvements, as summarized in Table 2-2:

- Tustin Street, North Leg, West Side: Widen ROW by approximately 12 feet for a distance of approximately 136 feet; and
- Katella Avenue, West Leg, North Side: Widen ROW by approximately 7 feet for a distance of 155 feet.

In addition, the addition of a bus turnout on the north side of Katella Avenue would remove existing conflicts occurring between vehicles and stopped buses in the travel way. Together, these intersection modifications would improve the overall operations at the intersection and reduce congestion and traffic delays.

Project construction would require the removal/reconstruction of private property improvements, as indicated on the project plans; removal/relocation of existing asphalt/concrete, curb, gutter, sidewalk, driveway aprons, storm drain inlets, hydrants, street trees/ornamental landscaping, utility boxes, bus stop shelters/benches/signs, street/traffic lights, telephone lines, and utilities; minor leveling and compaction; asphalt/concrete work; restriping the roadway; and re-installing traffic signals, streetlights, street trees/landscaping, retaining walls, curb/gutter, utilities, and other streetscape improvements at the new street boundary.
**Table 2-2**

Proposed Intersection Conditions

<table>
<thead>
<tr>
<th>Description</th>
<th>Tustin Street</th>
<th>Katella Avenue</th>
</tr>
</thead>
<tbody>
<tr>
<td>Right-of-way (Feet)</td>
<td>North Leg: 124</td>
<td>West Leg: 128</td>
</tr>
<tr>
<td>Curb-to-Curb (Feet)</td>
<td>North Leg: 108</td>
<td>West Leg: 110</td>
</tr>
<tr>
<td>Lanes</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>North Leg:</td>
<td>West Leg:</td>
</tr>
<tr>
<td></td>
<td>• 3 lanes NB</td>
<td>• 3 lanes EB</td>
</tr>
<tr>
<td></td>
<td>• 2 lanes SB/DLT</td>
<td>• 2 lanes EB/DLT</td>
</tr>
<tr>
<td></td>
<td>• 3 lanes SB</td>
<td>• 1 lane EB/DRT</td>
</tr>
<tr>
<td></td>
<td>• 1 lane SB/DRT</td>
<td>• 3 lanes WB</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• 1 Bus turnout WB</td>
</tr>
<tr>
<td>OCTA Bus Stops</td>
<td>North Leg, West Side: none</td>
<td>West Leg, North Side: Route No. 50</td>
</tr>
</tbody>
</table>

Notes: NB = Southbound; SB = Southbound; EB = Westbound; WB = Westbound; LT = Left Turn; RT = Right Turn; DLT = Dedicated Left Turn; DRT = Dedicated Right Turn.

**PRIVATE PROPERTY IMPACTS AND RIGHT OF WAY ACQUISITION**

Project implementation would affect four privately-owned commercial properties as described in Table 2-3. ROW acquisitions are conducted through a voluntary purchase system, based on an appraisal of the fair market value of the portion of the property acquired. If a voluntary purchase is unable to be completed, the City Council will make a decision whether or not to authorize condemnation of the needed ROW.

**Table 2-3**

Affected Private Properties

<table>
<thead>
<tr>
<th>Assessor Parcel No.</th>
<th>Address</th>
<th>Existing Use</th>
<th>Permanent Acquisition</th>
<th>Temporary Construction Easement</th>
<th>Impacted Improvements</th>
</tr>
</thead>
<tbody>
<tr>
<td>375-481-09</td>
<td>1302 N. Tustin Street</td>
<td>AT&amp;T Authorized Dealer</td>
<td>466 sq. ft.</td>
<td>3,415 sq. ft.</td>
<td>Remove &amp; reconstruct driveway; sign relocation; landscaping; parking area pavement</td>
</tr>
<tr>
<td>375-481-12</td>
<td>1300 N. Tustin Street</td>
<td>The Vitamin Shoppe</td>
<td>895 sq. ft.</td>
<td>688 sq. ft.</td>
<td>Remove &amp; reconstruct driveway; sign relocation; landscaping; parking area pavement</td>
</tr>
<tr>
<td>375-481-13</td>
<td>1611 E. Katella Avenue</td>
<td>El Pollo Loco</td>
<td>915 sq. ft.</td>
<td>2,071 sq. ft.</td>
<td>Remove &amp; reconstruct driveway; sign relocation; landscaping; parking area pavement</td>
</tr>
<tr>
<td>375-481-10</td>
<td>1611 E. Katella Avenue</td>
<td>El Pollo Loco</td>
<td>343 sq. ft.</td>
<td>955 sq. ft.</td>
<td>Remove &amp; reconstruct driveway; sign relocation; landscaping; parking area pavement</td>
</tr>
</tbody>
</table>

Note: Acquisition areas are approximate and may be refined during final design and ROW negotiations.
OPERATIONAL IMPACTS DURING CONSTRUCTION

The intersection widening project would involve a total disturbance area of approximately 18,464 square feet (0.42 acres) during construction. The proposed project would require localized excavation to depths ranging from approximately 1.5 feet for new curb/gutters to approximately 2 feet for street construction to approximately 3-feet 6-inch diameter bore, 13 feet deep for relocated traffic signal foundations, with no extensive excavation substantially beyond previous grading limits.

During construction, the City would close traffic lanes on Tustin Street and Katella Avenue to allow construction activities within the road ROW. The City would maintain a minimum of two traffic lanes in each direction on Tustin Street and Katella Avenue, within the construction area, so that reasonable two-way traffic flow through the intersection is maintained at all times. In addition, the City’s construction contractor would implement traffic control measures to ensure traffic safety during construction. Traffic control measures would be identified in a Traffic Control Plan prepared by a California-licensed Traffic Engineer (retained by the City’s construction contractor) and approved by the City Engineer or designee in consultation with the City’s Traffic Engineer prior to the start of construction. Traffic control may involve signage, use of delineators, flashing arrow signs, and/or temporary lane lines at the discretion of the City Engineer. All traffic control would conform to the provisions of the Work Area Traffic Control Handbook.

During construction, driveways and access to the adjacent commercial properties on Tustin Street and Katella Avenue would be affected. The City would ensure that access to private properties within the construction area is maintained at all times. In addition, the City would require the construction contractor to provide notification to all businesses and property owners adjacent to the construction area at least seven calendar days prior to beginning construction work. The City would also provide signage indicating that businesses in the area are open during construction. These measures are included in standard City contract specifications Sections 7-10, 7-10.1, and 7-10.3.

Construction of the intersection widening is anticipated to take approximately three months and is anticipated to begin in 2018.
Figure 1  Project Vicinity Map

🌟 Project vicinity: northwest corner of Tustin Street and Katella Avenue intersection.

Source: Google earth, 2016
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3.0. ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED AND ENVIRONMENTAL DETERMINATION

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

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

DETERMINATION. On the basis of this initial evaluation:

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

2. I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared. ☒

3. I find that proposed project may have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required. ☐

4. I find that the proposed project may have a "potentially significant impact" or "potentially significant unless mitigated impact" on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed. ☐

5. I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or Negative Declaration pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to an earlier EIR or Negative Declaration, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required. ☐

[Signature]
Environmental Review Coordinator

[Signature]
January 11, 2017
Date
EVALUATION OF ENVIRONMENTAL IMPACTS:

1. A brief explanation is required for all answers except “No Impact” answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A “No Impact” answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A “No Impact” answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

2. All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

3. Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. “Potentially Significant Impact” is appropriate if there is substantial evidence that an impact may be significant. If there are one or more “Potentially Significant Impact” entries when the determination is made, an EIR is required.

4. “Negative Declaration Less Than Significant With Mitigation Incorporated” applies where the incorporation of mitigation measures has reduced an effect from “Potentially Significant Impact” to a “Less Than Significant Impact”. The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from earlier analyses may be cross-referenced, as discussed below).

5. Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063 (c)(3)(D). In this case, a brief discussion should identity the following:

   a. Earlier Analysis Used. Identify and state where they are available for review.

   b. Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.

   c. Mitigation Measures. For effects that are “Less than Significant with Mitigation Measures Incorporated”, describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

6. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

7. Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

8. This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project’s environmental effects in whatever format is selected.

9. The explanation of each issue should identify:

   a. The significance criteria or threshold, if any, used to evaluate each question; and

   b. The mitigation measure identified, if any, to reduce the impact to less than significance.
4.0. INITIAL STUDY CHECKLIST AND ANALYSIS OF ENVIRONMENTAL IMPACTS

4.1 AESTHETICS

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

IMPACT ANALYSIS

4.1(a) A scenic vista is defined as a viewpoint that provides expansive views of a highly-valued landscape for the benefit of the general public. The Orange General Plan defines scenic vistas as those “...hillsides, ridgelines or open space areas that provide a unifying visual backdrop to the urban environment.” The project site does not contain hillsides, ridgelines, or open space and is located several miles from Santiago Canyon at Jamboree. The proposed project involves improvements to an existing intersection along a roadway located in a fully developed area of the City. The topography in this area is generally level and does not support far reaching views. Therefore, the proposed project would have no effect on a scenic vista. No impact would occur for this issue area.

Significance Determination Before Mitigation: No impact.
Mitigation Measures: None required.
Significance Determination After Mitigation: No impact.

4.1(b) The Tustin Street/Katella Avenue intersection is located approximately 1,220 feet west of the Costa Mesa Freeway (SR-55). The portions of SR-55 to the east of the project site are not designated as a State scenic highway.¹ However, SR-91 to the north of the project site, specifically northeast of the SR-55 and SR-91 interchange is designated as a State scenic highway. Given the distance of the project site and intervening topography, the project site is not visible from this State scenic highway. In addition, there are no scenic resources, including but not limited to, trees, rock outcroppings, or historic buildings within a state scenic highway that are within or adjacent to the project site. No impact would occur for this issue area.

Significance Determination Before Mitigation: No impact.
Mitigation Measures: None required.
Significance Determination After Mitigation: No impact.

4.1(c) The existing visual character of the project site and its surroundings is dominated by urban development, which includes paved roadways and sidewalks, landscaping, parking lots, commercial uses, and residential uses. There are no unique or scenic visual resources on the project site or in the project vicinity.

A project is considered to have a significant visual/aesthetic impact if the project substantially changes the character of the project site such that it becomes visually incompatible or visually unexpected when viewed in the context of its surroundings. These changes would degrade the existing visual character or quality of the site and its surroundings.

The proposed intersection widening improvements would not result in an appreciable change to the visual character of the site or its surroundings, as the proposed project represents a continuation of existing urban uses. The proposed project would require the removal of a small amount of ornamental landscaping, adjacent to Tustin Street and Katella Avenue. One street in the public sidewalk area on Tustin Street would be removed and two street trees in the public sidewalk area (one on Tustin Street and one on Katella Avenue) would be removed and replaced. In addition, two pines trees on private property adjacent to the AT&T building west of Tustin Street would be removed. In consideration of the existing developed context, implementation of the proposed project would not substantially degrade the existing visual character or quality of the project site and its surroundings. Therefore, a less than significant impact would occur for this issue area.

**Significance Determination Before Mitigation:** Less than significant impact.

**Mitigation Measures:** None required.

**Significance Determination After Mitigation:** Less than significant impact.

4.1(d) A significant impact may occur if a project were to introduce new sources of light or glare on or from the project site which would be incompatible with the area surrounding the project site, or which pose a safety hazard to motorists utilizing adjacent streets or freeways. The project site and surrounding area contain numerous sources of nighttime lighting typical of an urban setting including building lighting, streetlights, security lighting, and automobile headlights.

The proposed project would not produce any new light, glare, or shadows that are not already created by existing streetlights in the project area. The proposed project involves the replacement and relocation of existing streetlights to the new street boundary, ultimately moving the streetlights closer to commercial uses. These streetlights are typical of commercial corridors in urban areas and are low-level light sources that by their nature are not capable of generating a substantial amount of light or glare. In addition, the proposed project would conform to *Orange Municipal Code* (OMC) Section 17.12.030, Lighting, which prohibits the creation of glare or nuisance lighting. Lighting would be shielded and light fixtures would be directed downward toward the roadway. Thus, relocation of existing streetlights would not introduce new substantial sources of light and glare into the proposed project area that could adversely affect day or nighttime views. Therefore, a less than significant impact would occur for this issue area.

**Existing Regulations**

*OMC* Chapter 17.12.030 Lighting provides restrictions with respect to lighting. The following provisions are applicable to the proposed project:

A. *Lighting on any premises shall be directed controlled, screened or shaded in such a manner as not to shine directly on surrounding premises. Furthermore, lighting on any residential property shall be controlled so as to prevent glare or direct illumination of any public sidewalk or thoroughfares.*

B. *On any commercial or industrial zoned property, glare from exterior lighting shall be shielded screened or oriented so as not to be seen from any point beyond the exterior of the property and so the source shall not be a nuisance to any point beyond the exterior boundaries of the property or*
cause illumination in residential districts in excess of 0.5 foot-candles. Flickering or intrinsically bright sources of illumination shall be controlled so as not to be a nuisance in residential districts.

Significance Determination Before Mitigation: Less than significant impact.
Mitigation Measures: None required.
Significance Determination After Mitigation: Less than significant impact.
4.2  AGRICULTURE AND FORESTRY RESOURCES

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California 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 in Forest Protocols adopted by the California Air Resources Board.

Would the project:

<table>
<thead>
<tr>
<th>Would the project:</th>
<th>Potentially Significant Impact</th>
<th>Less Than Significant with Mitigation Incorporated</th>
<th>Less Than Significant Impact</th>
<th>No Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>(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?</td>
<td>☐ ☐ ☐ ☑</td>
<td>☐ ☐ ☐ ☑</td>
<td>☐ ☐ ☐ ☑</td>
<td>☑ ☑ ☑ ☑</td>
</tr>
<tr>
<td>(b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?</td>
<td>☐ ☐ ☐ ☑</td>
<td>☐ ☐ ☐ ☑</td>
<td>☐ ☐ ☐ ☑</td>
<td>☑ ☑ ☑ ☑</td>
</tr>
<tr>
<td>(c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?</td>
<td>☐ ☐ ☐ ☑</td>
<td>☐ ☐ ☐ ☑</td>
<td>☐ ☐ ☐ ☑</td>
<td>☑ ☑ ☑ ☑</td>
</tr>
<tr>
<td>(d) Result in the loss of forest land or conversion of forest land to non-forest use?</td>
<td>☐ ☐ ☐ ☑</td>
<td>☐ ☐ ☐ ☑</td>
<td>☐ ☐ ☐ ☑</td>
<td>☑ ☑ ☑ ☑</td>
</tr>
<tr>
<td>(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?</td>
<td>☐ ☐ ☐ ☑</td>
<td>☐ ☐ ☐ ☑</td>
<td>☐ ☐ ☐ ☑</td>
<td>☑ ☑ ☑ ☑</td>
</tr>
</tbody>
</table>

IMPACT ANALYSIS

4.2(a) The project site involves an existing roadway and commercial uses on the adjacent properties. The project site is designated as Urban and Built-Up Land on the Orange County Important Farmland 2014 map by the State of California Department of Conservation, Division of Land Resources, Farmland Mapping and Monitoring Program. Therefore, the project site is not designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. The proposed project would not convert farmland to non-agricultural use; thus, no impact would occur for this issue area.

Significance Determination Before Mitigation: No impact.
Mitigation Measures: None required.
Significance Determination After Mitigation: No impact.

4.2(b) The Williamson Act, passed by the California legislature in 1965, provides a tax incentive for retaining land in open space and agricultural uses. The project site is located in an urbanized area and is zoned C-TR, Limited Business Tustin Redevelopment Project Area. Agriculture is not a permitted use in this zone. The project site is developed as a roadway with adjacent commercial uses. The project site is not zoned for agriculture or within a Williamson Act contract; therefore, the proposed project would not conflict with existing zoning for agricultural use, or a Williamson Act contract. No impact would occur for this issue area.

Significance Determination Before Mitigation: No impact.
Mitigation Measures: None required.
Significance Determination After Mitigation: No impact.
4.2(c) The project site is located in an urbanized area and is currently developed as a roadway with adjacent commercial uses. The project site is not located on forest lands as defined in Public Resources Code Section 12220(g). There are no existing forest lands, timberlands, or timberland zoned Timberland Production either on-site or in the immediate vicinity. Further, the site is zoned C-TR, Limited Business Tustin Redevelopment Project Area. Forestry or timber production is not a permitted use in these zones. Thus, the proposed project would not conflict with existing zoning of forest land or cause rezoning of any forest land. No impact would occur for this issue area.

Significance Determination Before Mitigation: No impact.
Mitigation Measures: None required.
Significance Determination After Mitigation: No impact.

4.2(d) The project site is located in an urbanized area and is currently developed as a roadway with adjacent commercial uses. There are no existing forest lands either on-site or in the immediate vicinity of the project site. Therefore, the proposed project would not result in the loss of forest land or conversion of forest land to non-forest use. No impact would occur for this issue area.

Significance Determination Before Mitigation: No impact.
Mitigation Measures: None required.
Significance Determination After Mitigation: No impact.

4.2(e) The project site is located in an urbanized area and is currently developed as a roadway with adjacent commercial uses. There are no existing agricultural and forest land or uses either on-site or in the immediate vicinity. Therefore, the proposed project would not involve any changes that could result in conversion of farmland to non-agricultural use. No impact would occur for this issue area.

Significance Determination Before Mitigation: No impact.
Mitigation Measures: None required.
Significance Determination After Mitigation: No impact.
4.3 AIR QUALITY

Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations.

<table>
<thead>
<tr>
<th>Would the project:</th>
<th>Potentially Significant Impact</th>
<th>Less Than Significant With Mitigation Incorporated</th>
<th>Less Than Significant Impact</th>
<th>No Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) Conflict with or obstruct implementation of the applicable air quality plan?</td>
<td>✗</td>
<td>☑</td>
<td>☑</td>
<td>☑</td>
</tr>
<tr>
<td>(b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?</td>
<td>☑</td>
<td>☑</td>
<td>☑</td>
<td>☑</td>
</tr>
<tr>
<td>(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)?</td>
<td>✗</td>
<td>✗</td>
<td>☑</td>
<td>☑</td>
</tr>
<tr>
<td>(d) Expose sensitive receptors to substantial pollutant concentrations?</td>
<td>☑</td>
<td>☑</td>
<td>☑</td>
<td>☑</td>
</tr>
<tr>
<td>(e) Create objectionable odors affecting a substantial number of people?</td>
<td>☑</td>
<td>☑</td>
<td>☑</td>
<td>☑</td>
</tr>
</tbody>
</table>

The following information is summarized from the Air Quality Technical Memorandum prepared for the project by Michael Baker International, dated November 27, 2016. This report is included as Appendix A of this Initial Study.

AIR QUALITY_THRESHOLDS

Under CEQA, the South Coast Air Quality Management District (SCAQMD) is an expert commenting agency on air quality within its jurisdiction or impacting its jurisdiction. Under the Federal Clean Air Act (FCAA), the SCAQMD has adopted Federal attainment plans for ozone (O3) and particulate matter 10 microns in diameter or less (PM10). The SCAQMD reviews projects to ensure that they would not: 1) cause or contribute to any new violation of any air quality standard; 2) increase the frequency or severity of any existing violation of any air quality standard; or 3) delay timely attainment of any air quality standard or any required interim emission reductions or other milestones of any Federal attainment plan.

The CEQA Air Quality Handbook also provides significance thresholds for both construction and operation of projects within the SCAQMD jurisdictional boundaries. If the SCAQMD thresholds are exceeded, a potentially significant impact could result. However, ultimately the lead agency determines the thresholds of significance for impacts. If a project proposes development in excess of the established thresholds, as outlined in Table 4.3-1, a significant air quality impact may occur and additional analysis is warranted to fully assess the significance of impacts.

| Table 4.3-1 South Coast Air Quality Management District Emissions Thresholds |
| --- | --- | --- | --- | --- | --- | --- |
| Phase         | ROG | NOx | CO  | SOx | PM10 | PM2.5 |
| Construction  | 75  | 100 | 550 | 150 | 150  | 55   |
| Operational   | 55  | 55  | 550 | 150 | 150  | 55   |

Source: South Coast Air Quality Management District, CEQA Air Quality Handbook, November 1993; Michael Baker International (November 2016)

Notes:
ROG = reactive organic gases; NOx = nitrogen oxides; CO = carbon monoxide; SOx = sulfur oxides; PM10 = particulate matter up to 10 microns; PM2.5 = particulate matter up to 2.5 microns
Localized Significance Thresholds

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 July 2008) for guidance. The LST methodology assists lead agencies in analyzing localized impacts associated with project-specific level proposed projects. The SCAQMD provides the LST lookup tables for one-, two-, and five-acre projects emitting CO, nitrogen oxides (NOX), or PM10. 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.

Cumulative Emissions Thresholds

The SCAQMD’s 2012 AQMP was prepared to accommodate growth, meet State and Federal air quality standards, and minimize the fiscal impact that pollution control measures have on the local economy. Per the SCAQMD CEQA Air Quality Handbook, project-related emissions that fall below the established construction and operational thresholds should be considered less than significant unless there is pertinent information to the contrary. If a project exceeds these emission thresholds, the SCAQMD CEQA Air Quality Handbook states that the significance of a project’s contribution to cumulative impacts should be determined based on whether the rate of growth in average daily trips exceeds the rate of growth in population.

IMPACT ANALYSIS

4.3(a) Per the CEQA Air Quality Handbook, in order to determine consistency with the SCAQMD Air Quality Management Plan (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), localized concentrations of carbon monoxide (CO), NOX, and particulate matter (PM10 and PM2.5) would be less than significant. Therefore, the proposed project would not result in an increase in the frequency or severity of existing air quality violations. Because reactive organic gasses (ROG) are not a criteria pollutant, there is no ambient standard or localized threshold for ROGs. Due to the role ROG plays in O3 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 result in emissions that would be below the SCAQMD thresholds. Therefore, the proposed project would not 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?

As discussed in Response 4.3(d), the proposed project would result in less than significant impacts for localized concentrations during project construction. As such, the proposed project would not delay the timely attainment of air quality standards or AQMP emissions reductions.

Criterion 2

With respect to the second criterion for determining consistency with SCAQMD and Southern California Association of Governments (SCAG) air quality policies, it is important to recognize that air quality planning within the South Coast Air Basin (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 consistency focuses on whether or not a project exceeds the assumptions utilized in preparing the forecasts presented in an AQMP. Determining whether or not a project exceeds the assumptions reflected in the 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?

A project is consistent with the AQMP in part if it is consistent with the population, housing, and employment assumptions that were used in the development of the AQMP. In the case of the 2012 AQMP, four sources of data form the basis for the projections of air pollutant emissions: the Orange General Plan, and SCAG’s Growth Management Chapter of the Regional Comprehensive Plan and Guide (RCPG), 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 project involves adding a dedicated right turn pocket on southbound Tustin Street at Katella Avenue, and a bus turnout on the north side of Katella Avenue, which are not trip generating land uses. According to the Orange General Plan Circulation and Mobility Element, Tustin Street is designated as a Major Arterial roadway, and Katella Avenue is designated as a Smart Street. The proposed project is implementing the full buildout width planned for this intersection. In addition, the Tustin Street and Katella Avenue intersection is designated as a “critical Intersection” in the Orange General Plan Circulation and Mobility Element. Critical intersections deviate from typical City design standards by increasing the number of lanes at an intersection beyond what typically would be required. By increasing capacity at the intersection, the circulation link increases overall system capacity.

The proposed project would expedite traffic flow and reduce delay by adding a dedicated right turn pocket on southbound Tustin Street at Katella Avenue. The project would relieve traffic congestion, increase mobility, and accommodate existing traffic conditions in the area, consistent with the Orange General Plan Circulation and Mobility Element. Therefore, the proposed project would be considered consistent with the current Orange General Plan. Furthermore, the proposed project does not involve any uses that would increase population beyond what is considered in the Orange General Plan, and therefore, would not affect
City-wide and plans for population growth at the project site. Thus, the proposed project is consistent with the types, intensity, and patterns of land use envisioned for the site vicinity in the RCPG. The population, housing, and employment forecasts, which are adopted by SCAG’s Regional Council, are based on the City’s local plans and policies; these are used by SCAG in all phases of implementation and review. Additionally, as the SCAQMD has incorporated these same projections into the 2012 AQMP, it can be concluded that the proposed project would be consistent with the projections.

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

The proposed project would result in less than significant air quality impacts. Compliance with emission reduction measures identified by the SCAQMD would be required as identified in Response 4.3(b). As such, the proposed project meets this AQMP consistency criterion.

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

The proposed project would serve to implement various City of Orange and SCAG policies. The proposed project is located within a developed portion of the City and would relieve traffic congestion in the area and allow for more efficient mobility. The project site is located along Tustin Street and Katella Avenue in the vicinity of commercial uses.

In conclusion, the determination of 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. As discussed above, the proposed project’s long-term influence would also be consistent with the goals and policies of the 2012 AQMP and is, therefore, considered consistent with the SCAQMD’s 2012 AQMP.

It is noted that the SCAQMD is currently in the process of developing the 2016 AQMP, which is a comprehensive and integrated plan primarily focused on addressing the ozone and PM$_{2.5}$ standards. The Draft 2016 AQMP is available and anticipated to be adopted by the SCAQMD Governing Board in December 2016. As the 2016 AQMP is also based on City planning documents and SCAG growth forecasts, the proposed project would remain consistent. Thus, a less than significant impact would occur for this issue area.

**Significance Determination Before Mitigation:** Less than significant impact.

**Mitigation Measures:** None required.

**Significance Determination After Mitigation:** Less than significant impact.

4.3(b)

**Short-Term Construction**

Future construction of the project site would generate short-term air quality impacts. The proposed project involves construction activities associated with demolition, grading, paving, and roadway construction. The project would be constructed over approximately three months, beginning in 2018. Construction equipment would include concrete/industrial saws, rollers, paving equipment, tractors/loaders/backhoes, skid steer loaders, surfacing equipment, and signal boards. 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, weather conditions, number of construction personnel, and the amount of materials to be transported on- or off-site.
The analysis of daily construction emissions has been prepared utilizing CalEEMod. Refer to Appendix A for the CalEEMod outputs and results. Table 4.3-2, Short-Term Construction Related Air Emissions, presents the anticipated daily short-term construction emissions.

Emitted pollutants would include ROG, CO, NO\textsubscript{X}, PM\textsubscript{10}, and PM\textsubscript{2.5}. ROG emissions would be the greatest during the paving phase of construction. The largest amount of CO and NO\textsubscript{X} emissions would occur during the construction phase. PM\textsubscript{10} and PM\textsubscript{2.5} emissions would occur from fugitive dust (due to earthwork and excavation) and from construction equipment exhaust. The majority of PM\textsubscript{10} and PM\textsubscript{2.5} emissions would be generated by fugitive dust from earthwork activities. 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 and from the site.

Table 4.3-2
Short-Term Construction Air Emissions

<table>
<thead>
<tr>
<th>Construction Emissions</th>
<th>Pollutant (Pounds/Day)\textsuperscript{1}</th>
<th>ROG</th>
<th>NO\textsubscript{X}</th>
<th>CO</th>
<th>SO\textsubscript{2}</th>
<th>PM\textsubscript{10}</th>
<th>PM\textsubscript{2.5}</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unmitigated Emissions</td>
<td></td>
<td>2.58</td>
<td>25.22</td>
<td>19.19</td>
<td>0.04</td>
<td>1.61</td>
<td>1.27</td>
</tr>
<tr>
<td>Mitigated Emissions\textsuperscript{2}</td>
<td></td>
<td>2.58</td>
<td>25.22</td>
<td>19.19</td>
<td>0.04</td>
<td>1.53</td>
<td>1.25</td>
</tr>
<tr>
<td>SCAQMD Thresholds</td>
<td></td>
<td>75</td>
<td>100</td>
<td>550</td>
<td>150</td>
<td>150</td>
<td>55</td>
</tr>
<tr>
<td>Is Threshold Exceeded After Mitigation?</td>
<td></td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

Source: Michael Baker International (November 2016)

Notes:
1. Emissions were calculated using the California Emissions Estimator Model, as recommended by the SCAQMD.
2. The reduction/credits for construction emission mitigations are based on mitigation included in CalEEMod and as typically required by the SCAQMD through Rule 403. The mitigation includes the following: 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 A for detailed model input/output data.

ROG = reactive organic gases; NO\textsubscript{X} = nitrogen oxides; CO = carbon monoxide; SO\textsubscript{2} = sulfur dioxide; PM\textsubscript{10} = particulate matter up to 10 microns; PM\textsubscript{2.5} = particulate matter up to 2.5 microns.

As indicated in Table 4.3-2, construction-related emissions would not exceed the established SCAQMD thresholds for criteria pollutants. During construction activities, the proposed project would also be required to comply with standard City and SCAQMD regulations (refer to Existing Regulations) and Mitigation Measure AQ-1, resulting in a less than significant short-term air quality impact.

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), serpentine and ultramafic rocks are not known to occur within the project area. Thus, there would be no impact in this regard.

**Construction Odors**

Potential odors could arise from the diesel construction equipment used on-site, as well as from architectural coatings and asphalt off-gassing. Odors generated from the referenced sources are common in the man-made environment and are not known to be substantially offensive to adjacent receptors. Additionally, odors generated during construction activities would be temporary and would dissipate rapidly. Therefore, construction odors would be less than significant.

**Total Daily Construction Emissions**

In accordance with the SCAQMD Guidelines, CalEEMod was utilized to model construction emissions for ROG, NOX, CO, SOX, PM10, and PM2.5. As depicted in Table 4.3-2, construction emissions are below SCAQMD thresholds. Thus, construction-related air emissions would be less than significant.

**Long-Term Operational Emissions**

Long-term air quality impacts would consist of mobile source emissions generated from project-related traffic. The proposed project would provide a right turn pocket and bus turnout and would not generate any new vehicular trips. The proposed project would relieve traffic congestion, increase mobility, and accommodate existing traffic conditions in the area. Additionally, the proposed roadway improvement would not generate any stationary source emissions. Therefore, impacts in this regard would be less than significant.

**Existing Regulations**

The City shall obtain Rule 403 approval from the SCAQMD for minor grading activities.

The City shall comply with the provisions of the City’s *Standard Plans and Specifications* for public works construction related to minimizing air quality impacts during construction.

**Significance Determination Before Mitigation:** Potentially significant impact.

**Mitigation Measures:**

**AQ-1** During construction, the Construction Contractor shall comply with SCAQMD Rule 402 requiring the implementation of dust suppression techniques to prevent fugitive dust from creating a nuisance off-site. Implementation of the following measures would reduce short-term fugitive dust impacts on nearby sensitive receptors:

- All active portions of the construction site shall be watered every three hours during daily construction activities and when dust is observed migrating from the project site to prevent excessive amounts of 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;

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

- Visible dust beyond the project limits which emanates from the project shall be prevented to the maximum extent feasible;

- 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

- Reroute construction trucks away from congested streets or sensitive receptor areas.

**Significance Determination After Mitigation:** Less than significant impact with mitigation incorporated.

### 4.3(c) Cumulative Construction Impacts

With respect to the proposed project’s construction-period air quality emissions and cumulative Basin-wide conditions, the SCAQMD has developed strategies to reduce criteria pollutant emissions outlined in the 2012 AQMP pursuant to FCAA mandates. As such, the proposed project would comply with SCAQMD Rule 403 requirements, and the provisions of the City’s *Standard Plans and Specifications* for public works construction related to minimizing air quality impacts during construction (refer to Existing Regulations). 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 2012 AQMP emissions control measures. Per SCAQMD rules and mandates, as well as the CEQA requirement that significant impacts be mitigated to the extent feasible, these same requirements (i.e., Rule 403 compliance, the implementation of all feasible mitigation measures, and compliance with adopted AQMP emissions control measures) would also be imposed on construction projects throughout the Basin, which would include related projects.

Compliance with City and SCAQMD rules and regulations and Mitigation Measure AQ-1 would minimize the proposed project’s construction-related emissions and ensure that impacts are reduced to a less than significant level. Thus, it can be reasonably inferred that the proposed project-related construction emissions, in combination with those from other projects in the area, would not substantially deteriorate the local air quality. Thus, a less than significant impact would occur in this regard.
Cumulative Long-Term Impacts

As discussed previously, the proposed project would not result in long-term air quality impacts, as the proposed new right turn pocket is not considered a trip generating land use and would improve traffic conditions in the study area. Additionally, adherence to City and 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.

Existing Regulations

Refer to Existing Regulations cited earlier in this section.

Significance Determination Before Mitigation: Potentially significant impact.
Mitigation Measures: Refer to Mitigation Measure AQ-1. No additional mitigation measures are required.
Significance Determination After Mitigation: Less than significant impact with mitigation incorporated.

4.3(d) 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.

Sensitive receptors closest to the project site include residential uses located approximately 380 feet to the north. In order to identify impacts to sensitive receptors, the SCAQMD recommends addressing Localized Significance Thresholds (LSTs) for construction and operations impacts (area sources only).

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 impacts associated with project-specific level proposed projects. The SCAQMD provides the LST lookup tables for one, two, and five acre projects emitting CO, NOx, 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 site is located within Sensitive Receptor Area (SRA) 17, Central Orange County.

The SCAQMD guidance on applying CalEEMod to LSTs specifies the amount of acres a particular piece of equipment would likely disturb per day. The project would disturb approximately 0.42-acre; therefore, the LST thresholds for the smallest (one acre) were utilized for the construction LST analysis. It is noted that an operational LST analysis was not prepared, as the project would not result in operational emissions. The closest sensitive receptors to the project site are residential uses located approximately 380 feet to the north of the project site. These sensitive land uses 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. As the nearest sensitive uses are approximately 380 feet from the project site, the LST values for 100 meters were conservatively utilized.

Table 4.3-3 shows the construction-related emissions for NO\textsubscript{X}, CO, PM\textsubscript{10}, and PM\textsubscript{2.5} compared to the LSTs for SRA 17, Central Orange County. As shown in Table 4.3-3, construction emissions would not exceed the LSTs thresholds. Therefore, localized significance impacts from construction would be less than significant with implementation of existing regulations and Mitigation Measure AQ-1.

<table>
<thead>
<tr>
<th>Source</th>
<th>NO\textsubscript{X}</th>
<th>CO</th>
<th>PM\textsubscript{10}</th>
<th>PM\textsubscript{2.5}</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total On-Site Construction Emissions</td>
<td>25.12</td>
<td>18.09</td>
<td>1.27</td>
<td>1.17</td>
</tr>
<tr>
<td>Localized Significance Threshold</td>
<td>98</td>
<td>1,128</td>
<td>28</td>
<td>9</td>
</tr>
<tr>
<td>Thresholds Exceeded?</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

Source: Michael Baker International (November 2016)

Notes:
1. The paving 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\textsubscript{X}, CO, PM\textsubscript{10}, and PM\textsubscript{2.5}. The Localized Significance Threshold was based on the anticipated daily acreage disturbance for construction (approximately one acre; therefore, the one acre threshold was conservatively used), the distance to sensitive receptors, and the source receptor area (SRA 17).

Refer to Appendix A for detailed model input/output data.

**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 [ICU]) 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 proposed project involves adding a dedicated right turn pocket on southbound Tustin Street and a bus turnout on the north side of Katella Avenue, and would not generate new vehicle trips. The proposed project would relieve congestion and would not increase the ICU of nearby intersections to warrant a CO hotspot analysis. Thus, no impact would occur in this issue area.

**Existing Regulations**

Refer to Existing Regulations cited earlier in this section.

**Significance Determination Before Mitigation:** Potentially significant impact.

**Mitigation Measures:** Refer to Mitigation Measure AQ-1. No additional mitigation measures are required.

**Significance Determination After Mitigation:** Less than significant impact with mitigation incorporated.
4.3(e) An odor impact depends on numerous factors, including the nature, frequency, and intensity of the source; wind speed and direction; and the sensitivity of the receptors. While offensive odors rarely cause any physical harm, they still can be very unpleasant, leading to considerable distress among the public and often generating citizen complaints to local governments and regulatory agencies.

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 uses identified by the SCAQMD as being associated with odors.

Construction activities associated with the proposed project may generate detectable odors from heavy-duty equipment exhaust. However, these odors are familiar in an urban area, particularly in an urban area that is characterized by heavily traveled roadways. The emissions would not be excessive and would be of a relatively short duration during construction. Therefore, it is not anticipated that the proposed project would generate objectionable odors affecting a substantial number of people. Thus, a less than significant impact would occur for this issue area.

Significance Determination Before Mitigation: Less than significant impact.
Mitigation Measures: None required.
Significance Determination After Mitigation: Less than significant impact.
4.4 BIOLOGICAL RESOURCES

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

IMPACT ANALYSIS

4.4(a) The project site is located in an urban setting with existing development, including paved roadways, sidewalks, ornamental landscaping, signage, lighting, and utilities. The proposed project involves improvements to existing roadways located within an urbanized commercial area that has been fully developed. There are no natural or open space areas in the project vicinity. The proposed project involves improvements to a previously constructed roadway and would not impact any habitat that supports species identified as candidate, sensitive or special status in local, regional plans, policies or regulations by the California Department of Fish and Wildlife (CDFW) or United States Fish and Wildlife Service (USFWS). Therefore, no impact would occur for this issue area.

Significance Determination Before Mitigation: No impact.
Mitigation Measures: None required.
Significance Determination After Mitigation: No impact.

4.4(b) The project site is located in an urban setting with existing development, including paved roadways, sidewalks, ornamental landscaping, signage, lighting, and utilities. The proposed project involves improvements to existing roadways located within an urbanized commercial area that has been fully developed. There are no riparian or other sensitive natural communities within the project site. The proposed project involves improvements to a previously constructed roadway and would not have a substantial adverse effect on any riparian habitat or other sensitive natural communities identified in local or regional plans, policies, regulations, or by the CDFW or USFWS. Therefore, no impact would occur for this issue area.
Significance Determination Before Mitigation: No impact.
Mitigation Measures: None required.
Significance Determination After Mitigation: No impact.

4.4(c) The project site is located in an urban setting with existing development, including paved roadways, sidewalks, ornamental landscaping, signage, lighting, and utilities. The proposed project involves improvements to existing roadways located within an urbanized commercial area that has been fully developed. The proposed project involves improvements to a previously constructed roadway would not have a substantial adverse effect on federally protected wetlands as defined by the Federal Clean Water Act Section 404 through direct removal, filling, hydrological interruption, or other means. Therefore, no impact would occur for this issue area.

Significance Determination Before Mitigation: No impact.
Mitigation Measures: None required.
Significance Determination After Mitigation: No impact.

4.4(d) According to the Orange County (Central/Coastal) Natural Community Conservation Plan (NCCP), there are no identified wildlife corridors (special linkage areas) in the project area. Additionally, the urbanized nature of the project site and surrounding vicinity makes it unlikely that such a corridor would exist, as there are no natural open space areas that would provide wildlife habitat. Therefore, implementation of the proposed project would not 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. Therefore, no impact would occur for this issue area.

Significance Determination Before Mitigation: No impact.
Mitigation Measures: None required.
Significance Determination After Mitigation: No impact.

4.4(e) The proposed project would involve the removal of ornamental shrubs, groundcover, three palm trees within the ROW, and landscape setbacks on commercial properties along Tustin Street and Katella Avenue. One palm tree along Tustin Street would be removed due to its location with the new ROW. Two palm trees (one along Tustin Street and one along Katella Avenue) would be removed and replaced in a new location. In addition, two pines trees on private property adjacent to the AT&T building and west of Tustin Street would be removed. OMC Chapter 12.32 prohibits the removal of trees, including historic trees, from undeveloped and public interest property without a permit. Based on a review of the City’s Historic Trees Map, there are no historic trees located within the project site or immediate vicinity.

The proposed project involves the removal of three palm trees and two pine trees on the project site, which are not designated “historic” and are not located on “undeveloped property” or “public interest property,” as defined by OMC Chapter 12.32. Therefore, the tree removal would not conflict with local ordinances protecting biological resources. Also, the proposed project would be required to adhere to OMC Chapter 12.32. Therefore, no impact would occur for this issue area.

Existing Regulations

Orange Municipal Code Chapter 12.32 Tree Preservation establishes permit requirements for removing a tree on undeveloped property, public interest property, or historic trees.
Significance Determination Before Mitigation: No impact.
Mitigation Measures: None required.
Significance Determination After Mitigation: No impact.

4.4(f) The City is a participant in the NCCP, which was approved in 1996. The project site is not identified as a reserve, non-reserve open space, or special linkage in this NCCP. The project site does not fall within any other local or regional conservation plans. Therefore, the proposed project would not conflict with such plans. No impact would occur for this issue area.

Significance Determination Before Mitigation: No impact.
Mitigation Measures: None required.
Significance Determination After Mitigation: No impact.
4.5 CULTURAL RESOURCES

<table>
<thead>
<tr>
<th>Would the project:</th>
<th>Potentially Significant Impact</th>
<th>Less Than Significant Impact with Mitigation Incorporated</th>
<th>Less Than Significant Impact</th>
<th>No Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
</tr>
<tr>
<td>(b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
</tr>
<tr>
<td>(c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
</tr>
<tr>
<td>(d) Disturb any human remains, including those interred outside of formal cemeteries?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
</tr>
<tr>
<td>(e) Cause a substantial adverse change in the significance of a tribal cultural resource pursuant to PRC §21073 et seq.?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
</tr>
</tbody>
</table>

IMPACT ANALYSIS

4.5(a) The project limits include existing ROW and portions of adjacent privately-owned commercial properties. The project site contains paved roadways, sidewalks, landscaping, signage, lighting, and utilities. There are no historical resources located within the project limits or on adjacent properties. Therefore, the proposed project would not cause an adverse change in the significance of a historical resource. No impact would occur for this issue area.

Significance Determination Before Mitigation: No impact.
Mitigation Measures: None required.
Significance Determination After Mitigation: No impact.

4.5(b) & 4.5(c) The proposed project involves improvements to existing roadways located within an urbanized commercial area that has been fully developed.

The proposed project would require localized excavation to depths ranging from approximately 1.5 feet for new curb/gutters to approximately 2 feet for street construction to approximately 3-feet 6-inch diameter bore, 13 feet deep for relocated traffic signal foundations. The project site contains paved roadways, sidewalks, landscaping, signage, lighting, and utilities. The intersection was previously disturbed for installation of these existing improvements, and no archaeological or paleontological resources were discovered. Therefore, due to the level of past disturbance within the proposed project limits, the potential for encountering undiscovered archaeological/paleontological resources is minimal. Additionally, the proposed project is subject to compliance with California Public Resources Code Section 5097.5, which prohibits the excavation upon, removal, destruction, injury, or defacement of cultural resources, should any unanticipated resources be discovered during construction. Accordingly, should any undiscovered cultural material be uncovered during construction, standard contract specifications require contractors to halt work until the City can retain a qualified cultural resources specialist, and determine the nature and the significance of the find. If significant cultural materials are found, they are salvaged and collected under the responsible direction of a qualified cultural resources specialist. Compliance with State regulations would reduce potential impacts to archaeological or paleontological resources to less than significant.

Source: General Plan Environmental Impact Report Figure 5.5-1, Designated Historic Resources Figure 5.5-3, Resources Recommended for Designation.
Existing Regulations

The City of Orange Public Works Department’s Standard Contract Specifications require compliance with California Public Resources Code Section 5097.5, as stated below.

(a) No person shall knowingly and willfully excavate upon, or remove, destroy, injure, or deface any historic or prehistoric ruins, burial grounds, archeological or vertebrate paleontological site, including fossilized footprints, inscriptions made by human agency, rock art or other archaeological paleontological or historic features situated on public lands ...

Significance Determination Before Mitigation: Less than significant impact.
Mitigation Measures: None required.
Significance After Mitigation: Less than significant impact.

4.5(d) The proposed project involves improvements to existing roadways located within an urbanized commercial area that has been fully developed.

Extensive excavation substantially beyond previous grading limits would not be required for the proposed project. The intersection was previously disturbed for installation of existing improvements. No conditions exist that suggest human remains are likely to be found within the proposed project limits. Therefore, due to the level of past disturbance within the proposed project limits, it is not anticipated that human remains, including those interred outside of formal cemeteries, would be encountered during construction. Notwithstanding, ground-disturbing activities, such as grading or excavation, have the potential to disturb yet unidentified human remains.

If human remains were found, those remains would require proper treatment, in accordance with applicable laws. Also, if human remains are found during grading or excavation, activities must stop in the vicinity of the find and any area that is reasonably suspected to overly adjacent remains until the County coroner has been called out, and the remains have been investigated and appropriate recommendations have been made for the treatment and disposition of the remains. Compliance with the City’s Standard Contract Specifications would be required, which would reduce impacts to less than significant.

Existing Regulations

City Standard Contract Specifications

The City of Orange Public Works Department’s Standard Contract Specifications require compliance with California Public Resources Code Section 7050.5 and Section 5097.98:

Section 7050.5

(b) In the event of discovery of human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the coroner of the county in which the human remains are located are discovered has determined... that the remains are not subject to the provisions of Section 27491 of the Government Code or any other law concerning investigation of the circumstances, manner, and cause of any death, and the recommendations concerning the treatment and disposition of the human remains have been made to the person responsible for the excavation, or to his or her representative, in the manner provided in Section 5097.98 of the Public Resources Code. ...
Section 5097.98

(a) Whenever the commission receives notification of a discovery of Native American human remains from a county coroner pursuant to subdivision (c) of Section 7050.5 of the Health and Safety Code, it shall immediately notify those persons it believes to be most likely descended from the deceased Native American. The descendants may, with the permission of the owner of the land, or his or her authorized representative, inspect the site of the discovery of the Native American human remains and may recommend to the owner or the person responsible for the excavation work means for treatment or disposition, with appropriate dignity, of the human remains and any associated grave goods. The descendants shall complete their inspection and make recommendations or preferences for treatment within 48 hours of being granted access to the site.

(b) Upon the discovery of Native American remains, the landowner shall ensure that the immediate vicinity, according to generally accepted cultural or archaeological standards or practices, where the Native American human remains are located, is not damaged or disturbed by further development activity until the landowner has discussed and conferred, as prescribed in this section, with the most likely descendants regarding their recommendations, if applicable, taking into account the possibility of multiple human remains. The landowner shall discuss and confer with the descendants all reasonable options regarding the descendants' preferences for treatment.

**Significance Determination Before Mitigation:** Less than significant impact.
**Mitigation Measures:** None required.
**Significance Determination After Mitigation:** Less than significant impact.

4.5(e) The project site is not located within an area considered to be a tribal cultural resource pursuant to California Public Resources Code Section 21073 et seq., or to have high sensitivity for prehistoric archaeological resources. However, there is some potential for resources to be found within the developed area of Orange. Such resources may have been concealed during the process of development, or possibly buried prehistorically as the alluvial plain of Orange was developing. The only practical means of dealing with such resources is to have individuals responsible for subsurface work remain alert to the potential for unexpected and potentially important discoveries. As noted in Responses 4.5(b) through 4.5(d), Standard Contract Specifications require that if cultural material is uncovered during construction, contractors shall halt work until the City can retain a qualified cultural resources specialist, and determine the nature and the significance of the find. If human remains are found during grading or excavation, activities must stop in the vicinity of the find and any area that is reasonably suspected to overly adjacent remains until the County coroner has been called out, and the remains have been investigated and appropriate recommendations have been made for the treatment and disposition of the remains. Compliance with existing State and City requirements would reduce potential impacts to less than significant.

**Significance Determination Before Mitigation:** Less than significant impact.
**Mitigation Measures:** None required.
**Significance Determination After Mitigation:** Less than significant impact.

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3 Source: Orange General Plan Environmental Impact Report, Appendix D, Figure 1.
4 Source: Orange General Plan Environmental Impact Report, page 5.5-10.
4.6 GEOLOGY AND SOILS

<table>
<thead>
<tr>
<th>Would the project:</th>
<th>Potentially Significant Impact</th>
<th>Less Than Significant With Mitigation Incorporated</th>
<th>Less Than Significant Impact</th>
<th>No Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.</td>
<td>☑️ ☑️ ☑️ ☑️</td>
<td>☑️ ☑️ ☑️ ☑️</td>
<td>☑️ ☑️ ☑️ ☑️</td>
<td>☑️ ☑️ ☑️ ☑️</td>
</tr>
<tr>
<td>(ii) Strong seismic ground shaking?</td>
<td>☑️ ☑️ ☑️ ☑️</td>
<td>☑️ ☑️ ☑️ ☑️</td>
<td>☑️ ☑️ ☑️ ☑️</td>
<td>☑️ ☑️ ☑️ ☑️</td>
</tr>
<tr>
<td>(iii) Seismic-related ground failure, including liquefaction?</td>
<td>☑️ ☑️ ☑️ ☑️</td>
<td>☑️ ☑️ ☑️ ☑️</td>
<td>☑️ ☑️ ☑️ ☑️</td>
<td>☑️ ☑️ ☑️ ☑️</td>
</tr>
<tr>
<td>(iv) Landslides?</td>
<td>☑️ ☑️ ☑️ ☑️</td>
<td>☑️ ☑️ ☑️ ☑️</td>
<td>☑️ ☑️ ☑️ ☑️</td>
<td>☑️ ☑️ ☑️ ☑️</td>
</tr>
<tr>
<td>(b) Result in substantial soil erosion or the loss of topsoil?</td>
<td>☑️ ☑️ ☑️ ☑️</td>
<td>☑️ ☑️ ☑️ ☑️</td>
<td>☑️ ☑️ ☑️ ☑️</td>
<td>☑️ ☑️ ☑️ ☑️</td>
</tr>
<tr>
<td>(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?</td>
<td>☑️ ☑️ ☑️ ☑️</td>
<td>☑️ ☑️ ☑️ ☑️</td>
<td>☑️ ☑️ ☑️ ☑️</td>
<td>☑️ ☑️ ☑️ ☑️</td>
</tr>
<tr>
<td>(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?</td>
<td>☑️ ☑️ ☑️ ☑️</td>
<td>☑️ ☑️ ☑️ ☑️</td>
<td>☑️ ☑️ ☑️ ☑️</td>
<td>☑️ ☑️ ☑️ ☑️</td>
</tr>
<tr>
<td>(e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?</td>
<td>☑️ ☑️ ☑️ ☑️</td>
<td>☑️ ☑️ ☑️ ☑️</td>
<td>☑️ ☑️ ☑️ ☑️</td>
<td>☑️ ☑️ ☑️ ☑️</td>
</tr>
</tbody>
</table>

IMPACT ANALYSIS

4.6(a)(i) Orange General Plan Environmental Impact Report (GP EIR) Figure 5.6-1, Regional Fault Location Map, illustrates the locations of the large active faults that exist in the region and GP EIR Figure 5.6-2 illustrates the locations of faults that traverse the City. As indicated in GP EIR Figures 5.6-1 and 5.6-2, the project site is not located within any known Alquist-Priolo Earthquake fault zone, nor are there faults on or adjacent to the project site. Thus, no impacts would occur for this issue area.

Significance Determination Before Mitigation: No impact.
Mitigation Measures: None required.
Significance Determination After Mitigation: No impact.

4.6(a)(ii) The proposed project has the potential to expose people or structures to potential adverse effects from seismic shaking due to the site’s location in a seismically active area, as is the condition throughout Southern California. As indicated in GP EIR Figures 5.6-1 and 5.6-2, the faults located nearest the project site are the Peralta Hills Fault to the north, the El Modena Fault located to the east/southeast, and the Whittier, Chino, and Elsinore Faults located to the north. These faults are capable of producing ground shaking that could affect the proposed project site. The intensity of ground shaking would depend upon the magnitude of the earthquake, distance to the epicenter, and the geology of the area between the epicenter and the project site. However, the proposed project involves widening an existing intersection and does not propose construction of new habitable structures or a change in land use that could expose new populations to seismic activity. The possibility of moderate to high ground acceleration or shaking in the City and the site may be considered similar to the Southern California region, as a whole. The potential impacts associated with strong seismic ground shaking would be the same as exposure experienced under existing conditions and would be sufficiently mitigated for the proposed improvements through design and construction in conformance with the California Building Code, Orange Municipal Code, and engineering standards. Therefore, the proposed project would not expose people or structures to substantial adverse effects involving strong seismic ground shaking beyond the risks currently experienced at the proposed...
project site and throughout southern California. Thus, less than significant impacts would occur for this issue area.

**Significance Determination Before Mitigation:** Less than significant impact.  
**Mitigation Measures:** None required.  
**Significance Determination After Mitigation:** Less than significant impact.

4.6(a)(iii) Liquefaction is one of the major causes of geotechnical failure during earthquakes. It is generally a concern in areas characterized by sandy soils or loose sands, and/or shallow groundwater. Liquefaction occurs when ground shaking causes small displacements of soil particles, densifying the soil. When sand contains water in its voids, friction between the soil particles is reduced, reducing its strength, and the soil behaves as a liquid. As a result, structures resting on the soil will sink or tilt. Seismically-induced landslides occur in areas where steep slopes, unstable geologic features, and/or or seismic activity combine to upset the force of gravity and cause earth to move down a hillside.

*GP EIR* Figure 5.6-2 illustrates the locations of the City’s Liquefaction Hazard Areas and Landslide Hazard Areas. As indicated in Figure 5.6-2, the project site is not located in an area susceptible to liquefaction or seismically-induced landslide hazards. Therefore, no impact would occur for this issue area.

**Significance Determination Before Mitigation:** No impact.  
**Mitigation Measures:** None required.  
**Significance Determination After Mitigation:** No impact.

4.6(a)(iv) According to *GP EIR* Figure 5.6-2, the project site is not located in an area susceptible to liquefaction or seismically-induced landslide hazards. Given the generally level topography of the project site, the potential for landslides or other slope stability concerns resulting from the construction of the proposed project is negligible. Therefore, the proposed project would not expose people or structures to landslides. No impact would occur for this issue area.

**Significance Determination Before Mitigation:** No impact.  
**Mitigation Measures:** None required.  
**Significance Determination After Mitigation:** No impact.

4.6(b) The project site is located within an urbanized setting. The topography within the proposed project limits is generally level. Under existing conditions, site drainage is directed as sheet flow over paved areas onto existing roadways and into the storm drain system via the curb, gutter and inlet system.

One soil series, the Myford series is located on the project site:

- **Myford sandy loam, 0 to 2 percent slopes:** This nearly level soil generally occurs on broad terraces. About 10 percent of this soil is included areas of Myford sandy loam, thick surface, 0 to 2 percent slopes; three percent Capistrano sandy loam; three percent Chesterton loamy sand; three percent Yorba gravelly sandy loam; and five percent steeper Myford soils. If the soil is bare, runoff is slow and the erosion hazard is moderate.

Clearing, excavation, and grading for construction of the proposed improvements could expose soils to minimal short-term erosion by wind and water, and loss of topsoil. However, project implementation would result in less than significant impacts regarding soil erosion or loss of topsoil, based on the following factors:

- The proposed project’s construction activities would not involve extensive or substantial changes to topography.
The on-site soil type exhibits slow runoff and minimal erosion hazard characteristics, as described above.

With the exception of landscape planters, the excavated area would be paved with asphalt and other hardscape materials, thus, no long-term potential for soil erosion would result.

During construction, the contractor must implement the Storm Water Pollution Prevention Plan (SWPPP) and the City’s construction manager enforces these contract requirements in the field. Compliance with existing regulations adequately addresses the potential for erosion control. Therefore, impacts would be less than significant for this issue area.

**Existing Regulations**

Construction activities must conform to standard erosion control measures outlined in the *Standard Specifications for Public Works Construction* as part of the City’s standard construction contract provisions. These standards require that the contractor exercise every reasonable precaution to protect channels, storm drains, and bodies of water from pollution, and conduct operations so as to minimize or avoid muddying and silting of channels, drains, and waters. Standard construction contract specifications also require the development and implementation of a SWPPP. Per existing regulations, the City requires the contractor to submit a SWPPP to the City for review and approval prior to commencement of construction. The SWPPP must identify Best Management Practices (BMPs) to control erosion and pollutant transport. Applicable BMPs include the following measures (or the equivalent):

- Sediment from areas disturbed during construction must be retained on-site using structural controls (such as storm drain inlet protection, plastic sheeting, sandbags, check berms or desilting basins) to prevent erosion to storm drains, channels, or other bodies of water.

- Stockpiles of soil or other materials must be properly contained and covered to avoid sediment transport from the construction site via runoff, vehicle tracking, or wind.

- Runoff from equipment and vehicle washing must be contained at the construction site and not be discharged to the storm drain system.

**Significance Determination Before Mitigation**: Less than significant impact.<br>**Mitigation Measures**: None required.<br>**Significance Determination After Mitigation**: Less than significant impact.

4.6(c) According to *GP EIR* Figure 5.6-2, the project site is not located in an area susceptible to liquefaction or seismically-induced landslide hazards. In addition, the project site is developed roadways and commercial uses, and does not contain exposed hill slopes, unconsolidated materials, waste disposal sites or other site conditions typical of geologic instability. Therefore, impacts would be less than significant for this issue area.

**Significance Determination Before Mitigation**: Less than significant impact.<br>**Mitigation Measures**: None required.<br>**Significance Determination After Mitigation**: Less than significant impact.

4.6(d) A significant impact may occur if a project is built on expansive soils without proper site preparation or design features to provide adequate foundations for project buildings, thus posing a hazard to life and property. Expansive soils are clay-based soils that tend to expand (increase in volume) as they
absorb water and shrink (decrease in volume) as water is drawn away. If soils consist of expansive clays, foundation movement and/or damage can occur if wetting and drying of the clay does not occur uniformly across the entire area.

Expansiveness, or the potential to swell and shrink with repeated cycles of wetting and drying is a common feature of fine-grained clayey soils. The change in volume exerts stress on buildings and other loads placed on these soils. The occurrence of these soils is often associated with geologic units having marginal stability. The distribution of expansive soils can be widely dispersed, and they can occur in hillside areas as well as low-lying alluvial basins. As previously stated, the project site is underlain by Myford sandy loam (0 to 2 percent slope). This soil type is described as having a low to moderate shrink-swell potential. Therefore, the proposed project implementation would not create substantial risks to life or property due to expansive soils. Less than significant impacts would occur for this issue area.

**Significance Determination Before Mitigation:** Less than significant impact.
**Mitigation Measures:** None required.
**Significance Determination After Mitigation:** Less than significant impact.

4.6(e) The City of Orange Public Works Department is responsible for installation and maintenance of local wastewater collection facilities, which convey wastewater to Orange County Sanitation District trunk sewers. The proposed project involves improvements to existing roadways; thus, no wastewater would be generated. The project site is served by a sewer system and no septic tanks or alternative wastewater disposal systems would be required. Thus, no impact would occur for this issue area.

**Significance Determination Before Mitigation:** No impact.
**Mitigation Measures:** None required.
**Significance Determination After Mitigation:** No impact.
4.7  GRENTHOUSE GAS EMISSIONS

<table>
<thead>
<tr>
<th>Would the project:</th>
<th>Potentially Significant Impact</th>
<th>Less Than Significant Impact With Mitigation Incorporated</th>
<th>Less Than Significant Impact</th>
<th>No Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
<td>☐</td>
</tr>
<tr>
<td>(b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
<td>☐</td>
</tr>
</tbody>
</table>

IMPACT ANALYSIS

4.7(a) The proposed project involves widening existing roadways. Responses 4.3(a) through 4.3(c) discuss whether the proposed project would result in any significant short-term and/or long-term air quality impacts. As part of that analysis, the following pollutants were considered: Ozone, Carbon Monoxide, Nitrogen Oxides, Particulate Matter, and Fine Particulate Matter. It was concluded that construction of the proposed project would generate short-term air quality impacts during site preparation and construction activities. Fugitive dust and diesel exhaust emissions would be generated by construction equipment and trucks. In addition, the vehicles of commuting construction workers would also generate and emit exhaust emissions. Of these pollutants, carbon monoxide and nitrogen oxides are the primary pollutants that could relate to greenhouse gas emissions. Since construction of the proposed improvements and operations of the construction equipment would generate levels of carbon monoxide and nitrogen oxides, it is likely that construction activities would contribute to the overall levels of greenhouse emissions at the project site.

However, significant impacts are not expected for the reasons described in the following sentences. The SCAQMD has established a threshold of 3,000 MT CO2e/year for determining whether a particular project creates a significant impact. This amount of CO2e/year emissions equate to those generated by 70 single-family residences. Construction and operations of the proposed project are small-scale and minor in nature, and would generate less CO2e/year emissions than a 70-unit single-family development. Therefore, the proposed project would not exceed the SCAQMD threshold. Excessive levels of construction-related greenhouse gas emissions would not be generated. Regarding long-term impacts, after construction is completed, the existing roadways would function the same as under existing conditions. Excessive levels of operations-related greenhouse gas emissions would not be generated. Thus, a less than significant impact would occur for this issue area.

Significance Determination Before Mitigation:  Less than significant impact.
Mitigation Measures:  None required.
Significance Determination After Mitigation:  Less than significant impact.

4.7(b) The proposed project would not conflict with the Orange General Plan or the Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS).

The proposed project complies with Orange General Plan Circulation Element Figure CM-2, Master Plan of Streets and Highways. The Tustin Street/Katella Avenue intersection is identified as a “critical intersection” in the City’s Critical Intersection Program. Critical intersection improvements have previously been constructed on the northeast, southeast, and southwest corners of the Tustin Street/Katella Avenue intersection. The proposed project would construct the last improvements at the northwest corner of the intersection, full implementing the improvements anticipated on Figure CM-2. In addition, the proposed project complies with Orange General Plan Economic Development Element Policy 5.4, stated in Table NR-1 (Climate Change Related Policies), which states “…Rehabilitate...public rights-of-way.” The
proposed project complies with the policy as the intersection improvements are within the public rights-of-way result in a rehabilitation to facilitate circulation improvements.

In addition, the proposed project complies with the SCAQMD threshold for determining significance of impacts and would not generate significant levels of greenhouse gas emissions. On April 4, 2012, SCAG adopted the 2012-2035 RTP/SCS, which aimed to reduce greenhouse gas emissions by establishing regional and local goals and milestones. The proposed project is not of a scope or activity that would conflict with any of the goals and milestones of the 2012-2035 RTP/SCS. Excessive levels of construction-related greenhouse gas emissions would not be generated. Therefore, the proposed project would not conflict with any plan, policy, or regulation that reduces the generation of greenhouse gas emissions. A less than significant impact would occur for this issue area.

**Significance Determination Before Mitigation:** Less than significant impact.

**Mitigation Measures:** None required.

**Significance Determination After Mitigation:** Less than significant impact.
### 4.8 HAZARDS AND HAZARDOUS MATERIALS

<table>
<thead>
<tr>
<th>Would the project:</th>
<th>Potentially Significant Impact</th>
<th>Less Than Significant Impact</th>
<th>With Mitigation Incorporated</th>
<th>Less Than Significant Impact</th>
<th>No Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) Create a significant hazard to the public or the environment through the route transport, use or disposal of hazardous materials?</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>(b) Create a significant hazard to the public or the environment through reasonable foreseeable upset and accident conditions involving the release of hazardous materials into the environment?</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>(c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>(d) Be located on a site which is included on a list of hazardous materials sites complied pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
<td>☐</td>
</tr>
<tr>
<td>(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?</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>(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?</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>(g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>(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?</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

The following information is summarized from the Phase I Environmental Site Assessment (Phase I ESA) prepared for the project by Michael Baker International (Michael Baker), dated December 7, 2016. This report is included as Appendix B of this Initial Study.

### REGULATORY SETTING

**Federal Resource Conservation and Recovery Act**

The goal of the Federal Resource Conservation and Recovery Act (RCRA), a Federal statute passed in 1976, is the protection of human health and the environment, the reduction of waste, the conservation of energy and natural resources, and the elimination of the generation of hazardous waste as expeditiously as possible. The corresponding regulations in 40 CFR 260-299 provide the general framework for managing hazardous waste, including requirements for entities that generate, store, transport, treat, and dispose of hazardous waste.

**Federal Occupational Safety and Health Administration**

The Federal Occupational Safety and Health Administration (OSHA) promulgates regulations that are designed to protect the health and safety of employees during work hours. These regulations are found in 29 CFR Part 1910, titled Occupational Safety and Health Standards and Part 1926 titled Safety and Health Regulations during Construction. The regulations range from methods for preventing slips and trips to requirements for working with explosives and other hazardous materials.
California Code of Regulations Title 22

California Code of Regulations (CCR) Title 22 includes state hazardous waste regulations enforced by the California Department of Toxic Substance Control (DTSC) and local Certified Unified Program Agencies (CUPAs). The DTSC regulates the generation, transportation, treatment, storage, and disposal of hazardous waste under RCRA and the California Hazardous Waste Control Law.

California Health and Safety Code

State hazardous waste control laws enforced by the DTSC are included in the California Health and Safety Code. These regulations identify standards for the classification, management, and disposal of hazardous waste.

California Division of Occupational Safety and Health

The California Division of Occupational Safety and Health (Cal/OSHA) protects workers and the public from safety hazards through its Cal/OSHA programs and provides consultative assistance to employers. Cal/OSHA issues permits, provides employee training workshops, conducts inspections of facilities, investigates health and safety complaints, and develops and enforces employer health and safety policies and procedures.

County of Orange, Environmental Health Division

The Environmental Health Division of the County of Orange implements the Hazardous Waste Inspection Program throughout Orange County. The purpose of this program is to ensure that all hazardous wastes generated by Orange County businesses are properly handled, recycled, treated, stored, and disposed.

Orange County Hazardous Waste Management Plan

State legislation enacted in 1986 required the development of a Hazardous Waste Management Plan for counties (per California Health and Safety Code, Section 25135.1(d)) to serve as the primary planning document for hazardous waste management in the County as well as local jurisdictions. The Plan is intended to protect the health and welfare of the community while preserving economic vitality, and provide policy direction and action programs to address current and future hazardous waste management issues requiring local (City and County) responsibility and involvement. The Plan, developed in cooperation with the local jurisdictions including the City, was approved by the Orange City Council in 1991.

Orange Municipal Code

Orange Municipal Code Chapter 15.33 defines hazardous materials and related terms. This chapter also designates hazardous materials, outlines procedures for hazardous materials designation, and outlines required disclosure information.

City of Orange Fire Department

The City of Orange Fire Department is the Administering Agency for the Hazardous Materials Disclosure/Business Plan requirement of the California Health and Safety Code Chapter 6.95. All businesses operating within the City must disclose their hazardous materials on the forms provided through the Fire Prevention Bureau or on forms approved by the California Office of Emergency Services.
IMPACT ANALYSIS

4.8(a) The potential exists during construction for the contractor to use, transport, or dispose of hazardous materials as a routine part of the construction process. Construction equipment uses gasoline or diesel fuel; compressed gases may be used for welding; and solvents may be used for cleaning equipment. However, safe handling measures are required by the City of Orange Fire Department and the County of Orange Department of Environmental Health throughout the life of the proposed project. These measures include standards and regulations regarding the storage, handling, and use of these materials. Impacts associated with these materials would be reduced to a level that is less than significant through required Best Management Practices that must be implemented during construction.

Significance Determination Before Mitigation: Less than significant impact.
Mitigation Measures: None required.
Significance Determination After Mitigation: Less than significant impact.

4.8(b)

Standard Environmental Records Sources

The governmental sources have been searched by EDR at the request of Michael Baker for sites within the project site and within an approximate one-mile radius of the project site boundaries. Refer to Appendix B for a listing and description of the Federal, Tribal, State, and local records searched.

Project Site

The lists that were reviewed did not report any regulatory properties within the boundaries of the project site (refer to Appendix B Exhibit 4). No known corrective action, restoration, or remediation has been planned, is currently taking place, or has been completed on the project site. The project site has not been under investigation for violation of any environmental laws, regulations, or standards, as identified in the databases reported by EDR (refer to Appendix B).

Off-Site Properties

The lists that were reviewed reported multiple listed regulatory sites located within a one-mile radius of the project site that were listed in one or more of the regulatory databases identified in Appendix B. For a complete list of sites identified and their status, refer to Appendix B.

Adjoining Properties

Five sites have been reported adjoining the project site. Refer to Appendix B Table 3-1 for a description of the regulatory databases reported in association with properties listed. Refer to Appendix B Table 3-2, for further evaluation of these adjoining properties listed.

Adjacent Properties

The lists that were reviewed reported 20 regulatory sites adjacent to the project site. These off-site regulatory properties are considered to have a low potential of affecting the project site due to the distance, anticipated groundwater flow direction, and/or the status of the identified sites, with the exception of two adjacent dry cleaners (Express Cleaners [1315 North Tustin Street], and Quality Cleaners [located at 1915 East Katella Avenue], which are described in Appendix B Table 3-2). Refer to Appendix B for a listing of all properties noted.
Historical Uses Summary

Based upon the evaluation of the documented land use as demonstrated in the resources reviewed as part of this Phase I ESA, the project site appears to have historically consisted of transportation uses (North Tustin Street and Katella Avenue) and vacant land sometime in the mid to late 1800s, at which time the site and surrounding area was developed with orchard and residential uses.

By the 1950s through 1970s, the site and surrounding vicinity was redeveloped into commercial uses (including one restaurant and one gasoline service station on-site). Tustin Street and Katella Avenue appear to have been constructed before 1896 and were widened and improved multiple times between 1938 and 1977. By 1963, Carls Econ Service Station (1290 North Tustin Street) was constructed on-site. The property located at 1611 Katella Avenue (Kentucky Roast Beef) was constructed by 1968.

By 1979, the on-site gasoline service station was replaced with Conroy’s Flowers (at 1300 North Tustin Street) and Irvine Savings and Loan (1302 North Tustin Street). Irvine Savings and Loan was later replaced with office uses (including a dental office) in 1980, and then retail uses (Big and Tall Casual Male in 1995 and AT&T in 2014). Conroy’s Flowers (at 1300 North Tustin Street) was later redeveloped with The Vitamin Shoppe in 2011. By 1989, Kentucky Roast Beef (1611 East Katella Avenue) was replaced with El Pollo Loco.

The surrounding area appears to have predominantly been used as orchards and residential uses until the 1950s through 1970s, when the orchards were replaced with suburban residential and commercial uses. SR-55 was constructed sometime between 1952 and 1963. By 1963, one gasoline service station (Shell) was constructed to the southeast. By 1966, two more adjoining gasoline service stations (Maralet Shell Service and Mobil) were constructed to the east and south, respectively. By the 1980s, all adjoining gasoline service stations were redeveloped with commercial uses similar to those currently present. Refer to Table 4.8-1.

Table 4.8-1
Historical Uses Summary

<table>
<thead>
<tr>
<th>Year</th>
<th>On-Site Use</th>
<th>Surrounding Uses</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>1896</td>
<td>The project site appears to consist of transportation uses (Tustin Street and Katella Avenue) and vacant land.</td>
<td>The surrounding area appears to consist of sparse structures and infrastructure. Santiago Creek is noted to the southeast of the project site flowing in a southwest direction. A railroad feature is noted to the north and east of the project site.</td>
<td>USGS Topographic Maps</td>
</tr>
<tr>
<td>1898</td>
<td>No changes noted.</td>
<td>No changes noted.</td>
<td>USGS Topographic Maps</td>
</tr>
<tr>
<td>1901</td>
<td>No changes noted.</td>
<td>Two streams/rivers are noted to the east and west of the project site trending in a north-south direction.</td>
<td>USGS Topographic Maps</td>
</tr>
<tr>
<td>1902</td>
<td>No changes noted.</td>
<td>No changes noted.</td>
<td>USGS Topographic Maps</td>
</tr>
<tr>
<td>1932</td>
<td>No changes noted.</td>
<td>No changes noted.</td>
<td>USGS Topographic Maps</td>
</tr>
<tr>
<td>1935</td>
<td>No changes noted.</td>
<td>No changes noted.</td>
<td>USGS Topographic Maps</td>
</tr>
<tr>
<td>1938</td>
<td>The properties proposed for partial acquisition appear to consist of orchards. Tustin Street and Katella Avenue have been improved and widened.</td>
<td>The surrounding area appears to consist of orchards, and sparse residences.</td>
<td>Aerial Photographs</td>
</tr>
<tr>
<td>1942</td>
<td>One new structure is noted off-site in association with property proposed for ROW acquisition.</td>
<td>The developing area of Orange is noted to the southwest of the project site.</td>
<td>USGS Topographic Maps</td>
</tr>
<tr>
<td>Year</td>
<td>On-Site Use</td>
<td>Surrounding Uses</td>
<td>Source</td>
</tr>
<tr>
<td>------</td>
<td>-------------</td>
<td>------------------</td>
<td>--------</td>
</tr>
<tr>
<td>1946</td>
<td>The on-site structure is anticipated to be residential associated with on-site orchards.</td>
<td>No changes noted.</td>
<td>Aerial Photographs</td>
</tr>
<tr>
<td>1949</td>
<td>No changes noted.</td>
<td>No changes noted.</td>
<td>USGS Topographic Maps</td>
</tr>
<tr>
<td>1950</td>
<td>No changes noted.</td>
<td>No changes noted.</td>
<td>USGS Topographic Maps</td>
</tr>
<tr>
<td>1952</td>
<td>No changes noted.</td>
<td>No changes noted.</td>
<td>Aerial Photographs</td>
</tr>
<tr>
<td>1960</td>
<td>Building Permit for signage for future shopping center is noted at 1300 North Tustin Street.</td>
<td>No changes noted.</td>
<td>Building Permit Records</td>
</tr>
<tr>
<td>1963</td>
<td>On-site orchards and residential structure are no longer present and consist of disturbed vacant land.</td>
<td>Increased development is noted in the surrounding area. A number of residential uses have been constructed, and the SR-55 freeway is noted to the east. Shell is noted at the southeast corner of the East Katella Avenue and North Tustin Street intersection. Katella Avenue appears to have been realigned.</td>
<td>Aerial Photographs</td>
</tr>
<tr>
<td>1964</td>
<td>No changes noted.</td>
<td>New structures are noted adjoining the project site to the east, southeast, and south.</td>
<td>USGS Topographic Maps</td>
</tr>
<tr>
<td>1965</td>
<td>Carls Enco Service is listed at 1290 North Tustin Street (appears to be situated at the northwest corner of East Katella Avenue and Tustin Street).</td>
<td>Adjoining gasoline service stations are listed at 1282 North Tustin Street (Mobil #08-498), 1291 North Tustin Street (Maralet Shell Service), and 1297 North Tustin Street (Shell #12976). Surrounding uses listed include commercial, medical office, residential, and vacant land uses.</td>
<td>City Directory Abstract</td>
</tr>
<tr>
<td>1966</td>
<td>No changes noted.</td>
<td>A dry cleaning facility is listed at 1225 North Tustin Street, and 1217 North Tustin Street.</td>
<td>Aerial Photographs</td>
</tr>
<tr>
<td>1968</td>
<td>Building Permit for Kentucky Roast Beef at 1611 Katella Avenue (proposed for partial acquisition) is noted.</td>
<td>No changes noted.</td>
<td>Building Permit Records</td>
</tr>
<tr>
<td>1969</td>
<td>No changes noted.</td>
<td>No changes noted.</td>
<td>Building Permit Records</td>
</tr>
<tr>
<td>1970</td>
<td>No changes noted.</td>
<td>A body shop is listed at 1301 North Tustin Street.</td>
<td>City Directory Abstract</td>
</tr>
<tr>
<td>1972</td>
<td>Tustin Street and East Katella Avenue appear to have been improved and widened.</td>
<td>Orchards in the surrounding area appear to have substantially decreased. The commercial shopping center located to the northwest of the project site has been developed. The commercial shopping center adjoining the project site to the east appears to be developing.</td>
<td>USGS Topographic Maps Aerial Photographs</td>
</tr>
<tr>
<td>1975</td>
<td>No listings noted.</td>
<td>Toyota of Orange is listed at 1400 North Tustin Street.</td>
<td>City Directory Abstract</td>
</tr>
<tr>
<td>1977</td>
<td>No changes noted.</td>
<td>No changes noted.</td>
<td>Aerial Photographs</td>
</tr>
<tr>
<td>1979</td>
<td>Building Permit for Conroy’s Flowers at 1300 North Tustin Street. Building Permit for Irvine Savings and Loan at 1302 North Tustin Street. These uses appear to have replaced the service station.</td>
<td>No changes noted.</td>
<td>Building Permit Records</td>
</tr>
<tr>
<td>Year</td>
<td>On-Site Use</td>
<td>Surrounding Uses</td>
<td>Source</td>
</tr>
<tr>
<td>------</td>
<td>-------------</td>
<td>------------------</td>
<td>--------</td>
</tr>
<tr>
<td>1980</td>
<td>Orange Office is listed at the 1302 North Tustin Street (proposed for partial acquisition).</td>
<td>A dry cleaning facility is listed at 1315 North Tustin Street.</td>
<td>City Directory Abstract</td>
</tr>
<tr>
<td>1981</td>
<td>No changes noted.</td>
<td>No changes noted.</td>
<td>USGS Topographic Maps</td>
</tr>
<tr>
<td>1983</td>
<td>No changes noted.</td>
<td>No changes noted.</td>
<td>Building Permit Records</td>
</tr>
<tr>
<td>1985</td>
<td>No changes noted.</td>
<td>Shell #12976 located at 1297 North Tustin Street now consists of disturbed land.</td>
<td>Aerial Photographs</td>
</tr>
<tr>
<td>1986</td>
<td>No listings noted.</td>
<td>No changes noted.</td>
<td>City Directory Abstract</td>
</tr>
<tr>
<td>1989</td>
<td>Building Permit for El Pollo Loco is noted at 1611 East Katella Avenue.</td>
<td>The properties located at 1297 North Tustin Street, and 1282 North Tustin Street (former gasoline service stations) are now occupied by a commercial buildings. Maralay Shell Service located at 1291 North Tustin Street no longer exists. This property now consists of disturbed land.</td>
<td>Aerial Photographs, Building Permit Records</td>
</tr>
<tr>
<td>1991</td>
<td>No listings noted.</td>
<td>No changes noted.</td>
<td>City Directory Abstract</td>
</tr>
<tr>
<td>1992</td>
<td>Roof repairs for Conroy’s Flowers.</td>
<td>No changes noted.</td>
<td>Building Permit Records</td>
</tr>
<tr>
<td>1995</td>
<td>Building Permit for “Big and Tall Casual Male” is noted at 1302 North Tustin Street.</td>
<td>The property at 1291 North Tustin Street is now occupied by a commercial building.</td>
<td>Aerial Photographs, City Directory Abstract</td>
</tr>
<tr>
<td>1997</td>
<td>No changes noted.</td>
<td>No changes noted.</td>
<td>Building Permit Records</td>
</tr>
<tr>
<td>2003</td>
<td>No listings noted.</td>
<td>Southern Counties Oil is listed at 1800 East Katella Avenue.</td>
<td>City Directory Abstract</td>
</tr>
<tr>
<td>2005</td>
<td>No changes noted.</td>
<td>No changes noted.</td>
<td>Aerial Photographs</td>
</tr>
<tr>
<td>2008</td>
<td>No listings noted.</td>
<td>No changes noted.</td>
<td>City Directory Abstract</td>
</tr>
<tr>
<td>2009</td>
<td>No changes noted.</td>
<td>No changes noted.</td>
<td>Aerial Photographs</td>
</tr>
<tr>
<td>2010</td>
<td>No changes noted.</td>
<td>No changes noted.</td>
<td>Aerial Photographs</td>
</tr>
<tr>
<td>2011</td>
<td>Building Permit to demolish 2681 square feet of retail (Conroy’s) and build a new 2877-square foot retail building (The Vitamin Shoppe). Rough grading for a pad occurred in October 2011.</td>
<td>No changes noted.</td>
<td>Building Permit Records</td>
</tr>
<tr>
<td>2012</td>
<td>No changes noted.</td>
<td>No changes noted.</td>
<td>USGS Topographic Maps, Aerial Photographs, Building Permit Records</td>
</tr>
<tr>
<td>2013</td>
<td>No listings noted.</td>
<td>No changes noted.</td>
<td>City Directory Abstract</td>
</tr>
<tr>
<td>2014</td>
<td>Building Permit for improvements at 1302 North Tustin Street for AT&amp;T.</td>
<td>No changes noted.</td>
<td>Building Permit Records</td>
</tr>
</tbody>
</table>

Source: Michael Baker International (December 2016)
Refer to Appendix B for full citation and documentation of sources utilized in this table.

Note:
Other sources reviewed, but that which did not include information pertaining to the project site included the following: Sanborn Maps.
ON-SITE OBSERVATIONS

Description of On-Site Uses

The project site consists of transportation uses associated with Tustin Street and Katella Avenue. The proposed ROW acquisition of the properties located at 1300 North Tustin Street (The Vitamin Shoppe), 1302 North Tustin Street (AT&T Retail Store), 1541 East Katella Avenue (surface parking lot), and 1611 East Katella Avenue (El Pollo Loco) consist of paved areas and ornamental landscaping.

Description of On-Site Structures and Roads

The project site primarily consists of transportation uses including Tustin Street and Katella Avenue. Within the vicinity of the project site, Tustin Street contains six lanes (three lanes in the northbound direction and three lanes in the southbound direction) with one additional center left-turn lane. Katella Avenue contains six lanes (three lanes in the eastbound direction and three lanes in the westbound direction) with an additional center left-turn lane. Associated curb and gutter, driveway, and a concrete sidewalk are located within the boundaries of the project site. The remainder of the ROW acquisition properties (located off-site) include three one-story buildings (AT&T, The Vitamin Shoppe, and El Pollo Loco).

Description of Past Uses of The Project Site

Based on review of USGS Topographical Quadrangle maps, aerial photographs, city directory search, and City of Orange Building Records, past uses of the project site are reported to consist of transportation and commercial land uses (including one gasoline service station) as well as orchards and residential uses (between the 1930s and 1940s). No evidence to suggest the presence of other past uses was noted during the November 1, 2016 site visit.

Hazardous Substances and Petroleum Products

Michael Baker International did not observe hazardous substances or petroleum products associated with the project site.

Chemical Storage Tanks (ASTS and USTS)

During the November 1, 2016 site inspection, the project site was inspected for fill pipes, vent pipes, areas of abnormal or heavy staining, manways, manholes, access covers, concrete pads not homogenous with surrounding surfaces, concrete build-up areas potentially indicating pump islands, abandoned pumping equipment, or fuel pumps. Michael Baker did not observe evidence of any aboveground storage tanks (ASTs), USTS, or other chemical storage tanks within the boundaries of the project site.

Spills

No visual or physical evidence of stained catch basins, drip pads, sumps, or stained soils was observed during the November 1, 2016, site inspection.

Utilities

Typical roadside utilities (e.g., water-related utilities including stormwater drainage and irrigation utilities, sewer, and electrical utilities) were noted during the site inspection. No staining or leakage was noted with respect to on-site utilities.
Polychlorinated Biphenyls (PCBs)

No power poles or other electrical equipment were observed within the boundaries of the project site.

Wells

No water wells were observed within the boundaries of the project site during the November 1, 2016 site visit.

Potable Water Supply

No evidence of a potable water supply was noted during the site visit. However, the surrounding area appeared to be connected to the City’s local water system.

Sewage Disposal System

No evidence of a sewage disposal system (including septic systems) was noted during the site visit. The properties located at 1300 North Tustin Street, 1302 North Tustin Street, 1541 East Katella Avenue, and 1611 East Katella Avenue appeared to be connected to the City’s local sewer system.

Heating/Cooling

Michael Baker International did not observe any heating or cooling systems within the boundaries of the project site during the site visit.

Drains and Sumps

Roadway curb and associated catch basins were noted along Tustin Street and Katella Avenue.

Pits, Ponds, Lagoons

No pits, ponds, or lagoons were noted during the November 1, 2016 site visit.

Lead-Based Paints

Lead-based paints (LBPs) were commonly used in traffic striping materials before the discontinued use of lead chromate pigment in traffic striping/marketing materials and hot-melt Thermoplastic stripe materials (discontinued in 1996 and 2004, respectively). Traffic striping was observed along Tustin Street and Katella Avenue during the November 1, 2016 site visit. Thus, LBPs may be present within traffic striping. However, traffic striping was noted to be in good condition.

Until 1978, when the U.S. Consumer Product Safety Commission (CPSC) phased out the sale and distribution of paint containing lead, many structures were treated with paint containing some amount of lead. The mere presence of lead in paint may not constitute a material to be considered hazardous. In fact, if in good condition (no flaking or pealing), most intact LBP is not considered to be a hazardous material. In poor condition LBPs can create a potential health hazard for building occupants, especially children. No habitable structures are located on-site; therefore, the potential for LBPs to be found on-site as a result of building materials is unlikely.
Aerially Deposited Lead

Until the mid-1980s gasoline and other fuels contained lead as an additive. As each motor vehicle traveled the highways, tiny particles of lead were emitted in the exhaust and settled on the soils next to the freeways and roads. Most of the time, lead tends not to move very far or very fast in the environment. Over the years, lead built up alongside the freeways and roads. Caltrans highway-widening projects disturb the soils, some of which contains lead. DTSC regulations specify at what levels lead in soil is considered to be a risk.

Areas of the project site are paved; no areas of bare soil are present other than a few small areas of landscape planters. Thus, lead contamination within on-site bare soils is not anticipated.

Asbestos-Containing Material

Asbestos is a strong, incombustible, and corrosion resistant material, which was used in many commercial products since prior to the 1940s and up until the early 1970s. If inhaled, asbestos fibers can result in serious health problems. Asbestos containing materials (ACMs) are building materials containing more than one percent asbestos (some state and regional regulators impose a 0.1 percent threshold). No habitable structures are located on-site; therefore, the potential for ACMs to be found on-site as a result of building materials is unlikely.

OFF-SITE OBSERVATIONS

An adjoining property is considered any real property or properties that the border of which is contiguous or partially contiguous with that of the project site, or that would be contiguous or partially contiguous with that of the project site but for a street, road, or other public thoroughfare separating them. An adjacent property is any real property located within 0.25 miles of the project site’s border. Visual observations of the publicly accessible portions of adjoining properties were conducted on November 1, 2016 as part of this Phase I ESA and are described below.

Description of Current and Past Uses of The Surrounding Area

Current uses surrounding the project site primarily consist of commercial, residential, and transportation uses. Past uses consisted of orchards and residential land uses. No evidence to suggest past uses was observed during the November 1, 2016 site inspection.

Description of Current Uses and Structures at Adjoining Properties

Adjoining uses observed included commercial and transportation uses. No unusual or suspicious materials handling or storage practices were observed with respect to adjoining properties.

Description of Past Uses and Structures at Adjoining Properties

Based on available documentation obtained, off-site adjoining uses appear to have historically consisted of orchards, residential, commercial, transportation, and vacant land uses. Three former gasoline service stations adjoining the project site to the east, southeast, and south were constructed sometime in the 1960s. By 1989, these three gasoline service stations were redeveloped with commercial uses similar to the existing condition. No evidence to suggest other past uses was observed during the November 1, 2016, site visit.
Observations of Off-Site Properties

Utilities

Typical utilities (e.g., power lines with transformers, electrical boxes, etc.) were noted off-site during the November 1, 2016 site visit. Typical roadside utilities, including water-related utilities such as stormwater drainage and irrigation, and telephone/communication manholes, were noted adjacent to the project site. No staining or leaking was observed with respect to off-site utilities.

Chemical Storage Tanks

No chemical storage tanks were observed in vicinity of the project site. No unusual or suspicious materials handling or storage practices were observed on off-site properties.

Hazardous Materials

During a preliminary observation of surrounding properties on November 1, 2016, no visible physical evidence was observed to suggest that a surface release of petroleum-based material has recently occurred. No unusual or suspicious materials handling or storage practices were observed with respect to adjacent properties.

CURRENT ON-SITE USES

The project site is primarily comprised of transportation uses (Tustin Street and Katella Avenue) as well as paved or landscaped portions of commercial uses (El Pollo Loco, The Vitamin Shoppe, AT&T Retail Store, and driveway area associated with the larger Tuskatella Center). The western portion of Tustin Street and the northern portion of Katella Avenue, with associated curb and gutter, concrete sidewalk, ornamental landscaping, traffic control signals, and typical roadside utilities, are located on-site. No structures are located within the boundaries of the project site. The proposed ROW acquisition includes paved asphalt/concrete, driveway, and ornamental landscaped portions of 1611 East Katella Avenue (El Pollo Loco), 1300 North Tustin Street (The Vitamin Shoppe), 1302 North Tustin Street (AT&T Retail Store), and 1541 East Katella Avenue (driveway areas associated with the larger Tuskatella Center). The following is a discussion of findings made in association with current on-site uses.

1611 East Katella Avenue (El Pollo Loco)

This property is associated with proposed partial ROW acquisition and is currently occupied by an El Pollo Loco restaurant. The lists that were reviewed did not report any regulatory properties within the boundaries of this property. No known corrective action, restoration, or remediation has been planned, is currently taking place, or has been completed on this property. This property has not been under investigation for violation of any environmental laws, regulations, or standards, as identified in the databases reported by EDR. No indicators or potential hazardous materials were noted in relation to this use. Further, this restaurant use is not typically associated with the handling/storage/transport of hazardous materials in reportable quantities. Therefore, it is the opinion of Michael Baker that this current commercial use has not resulted in a REC at the time of this Phase I ESA.

1300 North Tustin Street (The Vitamin Shoppe)

This property is associated with proposed partial ROW acquisition and is currently occupied by a commercial use (The Vitamin Shoppe). The lists that were reviewed did not report any regulatory properties within the boundaries of this property. No known corrective action, restoration, or remediation has been
planned, is currently taking place, or has been completed on this property. This property has not been under investigation for violation of any environmental laws, regulations, or standards, as identified in the databases reported by EDR. No indicators or potential hazardous materials were noted in relation to this use. Further, this commercial (retail) use is not typically associated with the handling/storage/transport of hazardous materials in reportable quantities. Therefore, it is the opinion of Michael Baker that this current commercial use has not resulted in a REC at the time of this Phase I ESA.

1302 North Tustin Street (AT&T Retail Store)

This property is associated with proposed partial ROW acquisition and is currently occupied by an AT&T Retail Store. The lists that were reviewed did not report any regulatory properties within the boundaries of this property. No known corrective action, restoration, or remediation has been planned, is currently taking place, or has been completed on this property. This property has not been under investigation for violation of any environmental laws, regulations, or standards, as identified in the databases reported by EDR. No indicators or potential hazardous materials were noted in relation to this use. Further, this commercial (retail) use is not typically associated with the handling/storage/transport of hazardous materials in reportable quantities. Therefore, it is the opinion of Michael Baker that this current commercial use has not resulted in a REC at the time of this Phase I ESA.

1541 East Katella Avenue (Driveway Area for the Tuskatella Center)

This property is associated with proposed partial ROW acquisition and is currently occupied by the paved driveway area supporting the larger Tuskatella Center. The lists that were reviewed did not report any regulatory properties within the boundaries of this property. No known corrective action, restoration, or remediation has been planned, is currently taking place, or has been completed on this property. This property has not been under investigation for violation of any environmental laws, regulations, or standards, as identified in the databases reported by EDR. No indicators or potential hazardous materials were noted in relation to this use. Further, this paved driveway area is not associated with the handling/storage/transport of hazardous materials. Therefore, it is the opinion of Michael Baker that this current commercial use has not resulted in a REC at the time of this Phase I ESA.

Lead Based Paints (Traffic Striping Material)

LBPs were commonly used in traffic striping materials before the discontinued use of lead chromate pigment in traffic striping/marking materials and hot-melt thermoplastic stripe materials (discontinued in 1996 and 2004, respectively). Michael Baker observed traffic striping along North Tustin Street and Katella Avenue during the November 1, 2016 site visit. Thus, LBPs may be present within traffic striping.

As the on-site striping materials is currently contained, and no visible evidence to suggest the release of LBPs into the environment was observed, it is Michael Baker’s opinion that the likely presence of LBPs in traffic striping materials is not a REC at the time of this Phase I ESA.

PAST ON-SITE USES

Based upon the evaluation of the documented land use (as demonstrated in the resources reviewed as part of this Phase I ESA), past uses of the project site appeared to include orchards and residential uses until the 1960s. Later, these uses were redeveloped with a restaurant and gasoline service station, then again to the current commercial (restaurant/retail) uses present today. The following is a discussion of findings made in association with past on-site uses.
Past Orchards

Based on the evaluation of the documented land use (as demonstrated in the resources reviewed as part of this Phase I ESA), the project site appears to have historically consisted of orchards, which were constructed prior to 1938 and operated until the 1970s. Therefore, a combination of several commonly used pesticides (i.e., DDD, DDT, DDE), which are now banned, may have been used throughout the project site. The historical and current use of agricultural pesticides may have resulted in pesticide residues of certain persistence in soil concentrations that are considered to be hazardous based on established federal regulatory levels. The primary concern with historical pesticide residues is human health from inadvertent ingestion of contaminated soil, particularly by children. The presence of moderately elevated pesticide residuals in soil presents potential health and marketplace concerns.

As the project site was historically used for agriculture (particularly during the 1940s through 1960s), it is likely that pesticides/herbicides were historically used. However, since this time, the site has been highly disturbed by the 1970s for construction of commercial uses. Thus, it is the opinion of Michael Baker that it is unlikely that residual contamination above regulatory levels remains. It is the opinion of Michael Baker that this past use presents a de minimis condition and no REC has resulted.

Past Residential Use

Based on the evaluation of the documented land use (as demonstrated in the resources reviewed as part of this Phase I ESA), a structure (that appeared to be associated with a residential use) was present sometime prior to 1942 until sometime prior to 1963, when this structure demolished. No indicators or potential hazardous materials were noted in relation to this use. Additionally, this use was not reported as a regulatory property and, since this time, the site has been redeveloped with commercial uses and is highly disturbed. Therefore, it is the opinion of Michael Baker that the past anticipated residential use has not resulted in a REC at the time of this Phase I ESA.

Past Commercial Uses

By the 1950s through 1970s, the site and surrounding vicinity were developed into commercial uses (including one restaurant [Kentucky Roast Beef] and one gasoline service station [Carls Econ Service Station] on-site). By 1979, the on-site gasoline service station was replaced with Conroy’s Flowers (at 1300 North Tustin Street) and Irvine Savings and Loan (1302 North Tustin Street). Irvine Savings and Loan was later replaced with office uses (including a dental office) in 1980, and then retail uses (Big and Tall Casual Male in 1995 and AT&T in 2014). Conroy’s Flowers (at 1300 North Tustin Street) was later redeveloped with The Vitamin Shoppe in 2011. By 1989, Kentucky Roast Beef (1611 East Katella Avenue) was later redeveloped with El Pollo Loco.

The lists that were reviewed did not report any regulatory properties within the boundaries of this property. No known corrective action, restoration, or remediation has been planned, is currently taking place, or has been completed on this property. This property has not been under investigation for violation of any environmental laws, regulations, or standards, as identified in the databases reported by EDR.

Based on the information reviewed as part of this Phase I ESA, there are no indicators that past commercial (retail and restaurant) uses, other than the on-site gasoline service station, handled/stored/transported hazardous materials in reportable qualities. Other than the past gasoline service station, discussed below, it is the opinion of Michael Baker that these past commercial uses have not resulted in a REC at the time of this Phase I ESA.
Past Gasoline Service Station

This property, currently occupied by a commercial use (The Vitamin Shoppe), was formerly occupied by Carls Econ Service Station (reported at 1290 North Tustin Street) by 1963. Based on the EDR database search, this site reported historical USTs. Since this time, this gasoline service station was demolished and replaced with a Conroy’s Flowers by 1979 and later The Vitamin Shoppe by 2011.

Although reported to include former USTs, no known corrective action, restoration, or remediation has been reported in association with this site. Based on the information reviewed as part of this Phase I ESA, this property has not been under investigation for violation of any environmental laws, regulations, or standards, as identified in the databases reported by EDR.

Since this site has been demolished, and then re-graded for construction of the existing building on-site, and no contamination has been reported, it is the opinion of Michael Baker that no REC has resulted in this regard.

Aerially Deposited Lead

Until the mid-1980s gasoline and other fuels contained lead as an additive. As each motor vehicle traveled the highways, tiny particles of lead were emitted in the exhaust and settled on the soils next to the freeways and roads. Most of the time, lead tends not to move very far or very fast in the environment. Over the years, lead built up alongside the freeways and roads. Caltrans highway-widening projects disturb the soils, some of which contains lead. DTSC regulations specify at what levels lead in soil is considered to be a risk.

Areas of the project site are paved; no areas of bare soil are present other than areas of ornamental landscaping (which consist of fill materials for the purposes of planting). Thus, it is the opinion of Michael Baker that lead contamination within on-site bare soils is not anticipated. It is the opinion of Michael Baker that aerially deposited lead (ADL) has not resulted in a REC.

CURRENT ADJOINING PROPERTIES

Adjoining uses currently consist of transportation and commercial uses. The following is a discussion of findings made in association with current adjoining properties.

Commercial Uses

Adjoining commercial properties include Chase bank to the north; Miguel’s Jr. and a commercial strip mall to the east; a commercial center and Tustin and Katella Plaza West to the southeast and south, respectively; and Tuskatella Center to the west. Of these current adjoining properties, CVS Pharmacy and Tuska Dollar Cleaners have reported the handling/storage/transport of hazardous materials. Based on the EDR database search, no known corrective action, restoration, or remediation has been planned, is currently taking place, or has been completed on these current adjoining commercial properties. These properties have not been under investigation for violation of any environmental laws, regulations, or standards, pertaining to hazardous materials as identified in the databases reported by EDR. Based on the nature of the use for the CVS Pharmacy, it is the opinion of Michael Baker that this facility has not resulted in a REC at the time of this Phase I ESA. Further, it is Michael Baker’s opinion that no REC has resulted from these other current adjoining commercial properties, with the exception of the dry cleaner facility, which is discussed below.
Dry Cleaner Facilities

One current adjoining commercial property includes a dry cleaner facility at 1632 East Katella Avenue (Tuska Dollar Cleaners to the south). According to the U.S. Environmental Protection Agency (USEPA), dry cleaners are known to use a significant amount of chemicals, such as perchloroethylene (perc), which pose environmental concerns. At the end of the dry cleaning process, the cleaning fluid is separated from waste water by distillation. In the past, the waste water was often poured down floor drains. Perc can seep through the ground and contaminate surface water, groundwater, and potentially drinking water. Since a small amount of perc can contaminate a large amount of water, properties within a close proximity to dry cleaners or past dry cleaner sites have been found to potentially have subsurface contamination.

This dry cleaner facility adjoins the project site to the south, approximately 213 feet cross-gradient from the project site. As this facility is situated less than 360 feet cross-gradient from the project site, it is the opinion of Michael Baker that this adjoining property has likely resulted in soil gas/groundwater contamination at the project site and presents a REC at the time of this Phase I ESA. However, it is noted that groundwater is situated greater than 100 feet below ground surface (bgs) and is not anticipated to be encountered as part of the proposed intersection improvements.

PAST ADJOINING USES

Based on documentation reviewed as part of this Phase I ESA, past adjoining uses are reported to consist of commercial uses (including former gasoline service stations to the east, southeast, and south of the project site) as well as orchards and residential uses (in the mid to late 1800s until the 1950s through the 1970s). These past adjoining uses are discussed as follows:

1291 North Tustin Street (Former Maralet Shell service station)

This property is located at the northeast corner of Katella Avenue and Tustin Street, adjoining the project site to the east. This property is currently occupied by a commercial strip mall, but was historically occupied by a service station. This property consisted of a gasoline service station in the 1950s/1960s, at which time the gasoline service station was demolished.

Based on the EDR database search, no known corrective action, restoration, or remediation has been planned, is currently taking place, or has been completed for this past adjoining gasoline service station. This property has not been under investigation for violation of any environmental laws, regulations, or standards, pertaining to hazardous materials as identified in the databases reported by EDR. By the 1960s, this site was redeveloped with a commercial strip mall. As no contamination has been reported and this site has been redeveloped, it is the opinion of Michael Baker that it is not anticipated that contamination underlying the project site has resulted from this adjoining past use and no REC has resulted.

1297 North Tustin Street (Former Shell service station)

This property is located at the southeast corner of Katella Avenue and Tustin Street, adjoining the project site to the southeast. This property consisted of a gasoline service station from the 1950s to the 1960s, at which time the gasoline service station was demolished. Based on the information available from the RWQCB, an UST resulted in a release of gasoline to the soil. The RWQCB granted the site closure on June 20, 1989.

Since this time, this site was redeveloped with a commercial strip mall. Since the contamination was reported to soil only, is situated greater than 100 feet from the project site, and the site achieved case closure,
it is the opinion of Michael Baker that it is not anticipated that contamination underlying the project site has resulted from this adjoining past use and no REC has resulted.

1282 Tustin Street (Former Mobil service station)

This property is located at the southwest corner of Katella Avenue and Tustin Street, adjoining the project site to the south. This property is currently occupied by a commercial building, but was historically occupied by a Mobil service station. This property included a gasoline service station in the 1960s, at which time the gasoline service station was demolished. Based on the information available from the RWQCB, an UST resulted in a release of gasoline. The exact extent of the release is undefined. However, it is noted that groundwater is anticipated to be greater than 100 feet bgs. The case was closed and then reopened by the RWQCB in 1992.

Since this time, this site was redeveloped with a commercial building. Since this case remains open with the RWQCB and the site is situated less than 100 feet cross-gradient from the project site, it is the opinion of Michael Baker that this adjoining past use has resulted in a REC at the time of this Phase I ESA. However, it is noted that groundwater is situated greater than 100 feet bgs and is not anticipated to be encountered as part of the proposed intersection improvements.

CURRENT AND PAST ADJACENT USES

Current and past adjacent uses consist of vacant undeveloped land, residential, and agricultural (orchard) uses. Multiple adjacent properties were listed in multiple regulatory databases involving hazardous materials. However, based on the information reviewed as part of this Phase I ESA, no reported adjacent regulatory properties have been identified that also present a potential concern to groundwater underlying the project site (based on distance from the project site, direction of anticipated groundwater flow, site status, and/or no contamination has been reported), with the exception of two dry cleaner facilities discussed below.

1315 North Tustin Street (Express Cleaners)

This property is located at 1315 North Tustin Street, approximately 340 feet east (up-gradient) of the project site. This site has reported the handling of hazardous materials, as well as a chemical release incident. The release was closed by the County in 2003. Thus, based on the site status of this site, it is the opinion of Michael Baker that no REC has resulted in this regard.

1915 East Katella Avenue (Quality Cleaners)

This property is located at 1915 East Katella Avenue, approximately 570 feet east (up-gradient) of the project site. This site has reported the handling of hazardous materials. Thus, based on the distance up-gradient from the project site, it is the opinion of Michael Baker that a REC has resulted in this regard. However, it is noted that groundwater is situated greater than 100 feet bgs and is not anticipated to be encountered as part of the proposed intersection improvements.

PHASE I ESA CONCLUSIONS

Michael Baker performed a Phase I ESA in conformance with the scope and limitations of ASTM E 1527-13 Standard Practice of the project site. This Phase I ESA has revealed the following evidence of RECs in connection with the project site:
- **1632 East Katella Avenue (Tuska Dollar Cleaners):** It is the opinion of Michael Baker that soil gas/groundwater contamination is likely to be present on-site as a result of this adjoining dry cleaner facility. However, it is noted that groundwater is reported greater than 100 feet bgs and is not anticipated to be encountered as part of the project.

- **1282 North Tustin Street (former Mobil service station):** It is the opinion of Michael Baker that soil gas/groundwater contamination is likely to be present on-site as a result of this past adjoining Mobile service station. However, it is noted that groundwater is reported greater than 100 feet bgs and is not anticipated to be encountered as part of the project.

- **1915 East Katella Avenue (Quality Cleaners):** It is the opinion of Michael Baker that soil gas/groundwater contamination is likely to be present on-site as a result of this past adjacent dry cleaner facility. However, it is noted that groundwater is reported greater than 100 feet bgs and is not anticipated to be encountered as part of the project.

**IMPACT ANALYSIS**

**Accidental Conditions During Construction**

**Former On-Site Gasoline Service Station**

The property, currently occupied by a commercial use (The Vitamin Shoppe), was formerly occupied by Carls Econ Service Station (reported at 1290 North Tustin Street) by 1963. Based on the EDR database search, this site reported historical USTs. Since this time, this gasoline service station was demolished and replaced with a Conroy’s Flowers by 1979 and later The Vitamin Shoppe by 2011.

Although reported to include former USTs, no known corrective action, restoration, or remediation has been reported in association with this site. Based on the information reviewed as part of this Phase I ESA, this property has not been under investigation for violation of any environmental laws, regulations, or standards, as identified in the databases reported by EDR.

Since this site has been demolished, and then re-graded for construction of the existing building on-site, and no contamination has been reported, it is unlikely that contamination exists in on-site soils. However, in order to ensure worker safety during construction, the project should implement Mitigation Measure HAZ-1, which would require a worker safety plan during construction. With implementation of Mitigation Measure HAZ-1, impacts in this regard would be reduced to less than significant.

**Groundwater Contamination from Off-Site Properties**

Based on the Phase I ESA, there is the potential for contaminated groundwater to underlie the project site as a result of off-site dry cleaner facilities and a former gasoline service station (Mobil). However, groundwater is situated greater than 100 feet below ground surface (bgs) and is not anticipated to be encountered as part of the proposed intersection improvements. Thus, implementation of the proposed project is not anticipated to result in accidental conditions involving potentially contaminated groundwater.

**Lead-Based Paints**

LBPs were commonly used in traffic striping materials before the discontinued use of lead chromate pigment in traffic striping/marking materials and hot-melt thermoplastic stripe materials (discontinued in 1996 and 2004, respectively). Michael Baker observed traffic striping along North Tustin Street and Katella Avenue during the November 1, 2016 site visit. Thus, LBPs may be present within traffic striping.
Implementation of the proposed project would involve grinding of traffic striping materials. Mitigation Measure HAZ-1 requires consideration of potential LBP waste materials as a result of the project. With implementation of Mitigation Measure HAZ-1, impacts in this regard would be reduced to less than significant.

Cortese Listed Sites

Government Code Section 65962.5 requires the Department of Toxic Substances Control (DTSC) and SWRCB to compile and update a regulatory sites listing. 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, no properties associated with acquisition for ROW are listed pursuant to Government Code Section 65962.5. Thus, no impacts would occur in this regard

Significance Determination Before Mitigation: Potentially significant impact.

Mitigation Measures:

HAZ-1 The City and/or its contractor shall comply with the following:

- Prior to the start of construction, the City shall retain a Phase II/Site Characterization Specialist to sample the project site to determine whether existing and/or past uses have contaminated the soil that underlies the project site. Results of sampling shall indicate the level of remediation efforts required, if necessary. At a minimum, if contaminated soil is present, the City’s Project Manager shall notify the Orange County Health Care Agency (OCHCA) and Orange Fire Department (OFD) and the material shall be contained, removed, and disposed of at a permitted landfill facility by a qualified remediation contractor in accordance with existing regulations (including the Orange County Health Care Agency requirements governing soil remediation). Additionally, if contaminated soil is present, the construction contractor shall manage soils as hazardous waste, including removing, covering, and transporting to an approved disposal facility, in conformance with OCHCA and OFD requirements. These requirements shall be included in the construction contract and enforced by the City’s Project Manager and construction inspector.

- Prior to commencement of construction, the City shall coordinate with Southern California Edison (SCE) to determine whether removal/relocation of pad- and pole-mounted transformers is necessary for the project. If determined necessary, the City’s Project Manager and the contractor shall coordinate with SCE to ensure that work is done consistent with handling procedures for PCBs for the transformers. This requirement shall be included in the construction contract and enforced by the City’s Project Manager and construction inspector.

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During construction, the contractor shall ensure that any ground asphalt containing yellow paint or thermoplastic traffic stripes is recycled at a facility for reuse in asphalt products in accordance with the OMC Construction Waste Ordinance. This requirement shall be included in the construction contract and enforced by the City’s Project Manager and construction inspector.

During construction, if striping is removed and disposed of, prior to disposal the contractor shall test representative samples of striping paint. If lead is found, the material shall be disposed of to an appropriate, permitted disposal facility that accepts lead-impacted construction waste. Prior to soil disturbance, a qualified contractor shall test soil adjacent to the roadway for lead and other heavy metals in accordance with existing regulations. If lead is found in the soil, the removed soil shall be contained, covered, and disposed of at a permitted facility. This requirement shall be included in the construction contract and enforced by the City’s Project Manager and construction inspector.

During construction, if unknown wastes or suspect materials are discovered during by the contractor, which he/she believes may involve hazardous waste/materials, the contractor shall be required to complete the following:

- Immediately stop work in the vicinity of the suspected contaminant, removing workers and the public from the area;
- Notify the City's Project Manager;
- Secure the areas as directed by the City's Project Manager; and
- Notify the Orange Fire Department and OCHCA Hazardous Waste/Materials Coordinator.

**Significance Determination After Mitigation:** Less than significant impact with mitigation incorporated.

**4.8(c)** The nearest school to the project site is California Elementary School, located approximately 0.41-miles southwest of the project site. The proposed project involves existing roadways (Tustin Street and Katella Avenue), which are currently used for the transport of hazardous materials, similar to other roadways within the City or County of Orange. Additionally, the proposed project could result in the transport of hazardous materials during construction (e.g., Lead Based Paints and/or contaminated soils associated with remediation activities [if any], etc.). The proposed project is subject to compliance with City of Orange Fire Department, County of Orange Department of Environmental Health, and South Coast Air Quality Management District standards and regulations that govern the handling and transport of hazardous materials. Following compliance with these regulatory provisions, the proposed project would result in a less than significant impact.

Hazardous materials would be handled in compliance with applicable laws and regulations (refer to Existing Regulations cited previously in this section) and would not create a significant hazard to the public or the environment. Therefore, a less than significant impact would occur for this issue area.

**Significance Determination Before Mitigation:** Less than significant impact.
**Mitigation Measures:** None required.
**Significance Determination After Mitigation:** Less than significant impact.
**4.8(d)** Refer to Response 4.8(b).

**Significance Determination Before Mitigation:** Potentially significant impact.
**Mitigation Measures:** Refer to Mitigation Measures HAZ-1. No additional mitigation measures are required.
**Significance Determination After Mitigation:** Less than significant impact with mitigation incorporated.

**4.8(e)** The project site is neither located within an airport land use plan, nor within two miles of a public airport. The nearest airport is John Wayne Airport, located approximately eight miles south of the project site in the City of Santa Ana. Therefore, the proposed project would not result in a safety hazard for people residing or working in the project area. No impact would occur for this issue area.

**Significance Determination Before Mitigation:** No impact.
**Mitigation Measures:** None required.
**Significance Determination After Mitigation:** No impact.

**4.8(f)** The proposed project would not result in a safety hazard as the project site is not located within the vicinity of a private airstrip. Therefore, no impact would occur for this issue area.

**Significance Determination Before Mitigation:** No impact.
**Mitigation Measures:** None required.
**Significance Determination After Mitigation:** No impact.

**4.8(g)** The City of Orange Emergency Operations Plan (EOP) provides the emergency response and evacuation plans for the project site and vicinity in the event of a natural disaster, technological incident, or nuclear defense operation. The EOP is directed toward large scale disasters and does not apply to day-to-day emergencies or the routine procedures used to respond to these emergencies. All City arterials are recognized as primary emergency response routes. In addition, non-arterials can be secondary emergency response routes. According to the Orange General Plan Public Safety Element Figure PS-4: Generalized Evacuation Corridors, Katella Avenue is identified as an evacuation corridor.

During construction, short-term temporary street or lane closures on Tustin Street and Katella Avenue would be needed. Katella Avenue, which is the only evacuation corridor identified in the Orange General Plan Public Safety Element near the project site, would include a limited lane closure adjacent to the project site in order to construct the proposed project.

To ensure that the proposed project does not impair the ability of the City to utilize Tustin Street or Katella Avenue venue for public safety access, the contractor would be required to implement measures identified in the City’s Standard Plans and Specifications. Section 7-10.3 (Street Closures, Detours, Barricades) of the Standard Plans and Specifications requires that emergency vehicles be permitted to pass through work areas without delay at all times. The contractor would be required to notify emergency service providers of street closures prior to construction. In addition, the contractor would be required to coordinate through access to emergency/fire access vehicles with the local fire authority having jurisdiction. It shall be the sole responsibility of the contractor to provide a fire watch specialist service for the duration of time that emergency/fire access vehicles are blocked and/or obstructed during construction. Further, the street or lane closures on Tustin Street and Katella Avenue would be temporary, only lasting during construction activities.
The proposed project would involve a limited lane closure adjacent to the project site on Katella Avenue; therefore, a less than significant impact to an evacuation corridor would occur. Further, no permanent change to the use of Tustin Street or Katella Avenue would occur. Implementation of the proposed project would not impair the ability of the City to implement its emergency response plan or utilize its emergency evacuation routes. Therefore, impacts would be less than significant for this issue area.

**Significance Determination Before Mitigation:** Less than significant impact.

**Mitigation Measures:** None required.

**Significance Determination After Mitigation:** Less than significant impact.

**4.8(h)** According to the *Orange General Plan* Public Safety Element Figure PS-1 Environmental and Natural Hazard Policy Map, the project site is located within an urban area where there are no wildlands and no wildland fire hazard risk areas. Therefore, the proposed project would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires. No impact would occur for this issue area.

**Significance Determination Before Mitigation:** No impact.

**Mitigation Measures:** None required.

**Significance Determination After Mitigation:** No impact.
### HYDROLOGY AND WATER QUALITY

<table>
<thead>
<tr>
<th>Would the project:</th>
<th>Potentially Significant Impact</th>
<th>Less Than Significant Impact With Mitigation Incorporated</th>
<th>Less Than Significant Impact</th>
<th>No Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) Violate any water quality standards or waste discharge requirements?</td>
<td>☐</td>
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<tr>
<td>(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)?</td>
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<tr>
<td>(c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in a substantial erosion or siltation on- or off-site.</td>
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<tr>
<td>(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?</td>
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<tr>
<td>(e) Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?</td>
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<td>(f) Otherwise substantially degrade water quality?</td>
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<td>(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?</td>
<td>☐</td>
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<tr>
<td>(h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?</td>
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<td>(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?</td>
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<td>(j) Inundation by seiche, tsunami, or mudflow?</td>
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<td>(k) Potentially impact stormwater runoff from construction activities?</td>
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<tr>
<td>(l) Potentially impact stormwater runoff from post-construction activities?</td>
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<tr>
<td>(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?</td>
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<tr>
<td>(n) Result in the potential for discharge of stormwater to affect the beneficial uses of the receiving waters?</td>
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<tr>
<td>(o) Create the potential for significant changes in the flow velocity or volume of stormwater runoff to cause environmental harm?</td>
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<tr>
<td>(p) Create significant increases in erosion of the project site or surrounding areas?</td>
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### REGULATORY SETTING

**National Pollutant Discharge Elimination System**

The project would be required to prevent the transport of sediments from the site by stormwater runoff and winds during construction through the use of appropriate Best Management Practices (BMPs).

The City’s Local Implementation Plan (Section A-8 Construction) identifies erosion control BMPs. Erosion control is any source control practice that protects the soil surface and prevents soil particles from being...
detached by rainfall, flowing water, or wind. Sediment control is any practice that traps soil particles after they have been detached and moved by rain, flowing water, or wind. The following are typical erosion and sediment control BMPs to prevent or reduce erosion:

- **EC-5: Soil Binders.** Soil binding consists of application and maintenance of a soil stabilizer to exposed soil surfaces. Soil binders are materials applied to the soil surface to temporarily prevent water and wind induced erosion of exposed soils on construction sites.
- **SE-5: Fiber Rolls.** A fiber roll may be placed along the perimeter of the project and operational storm drains as a form on inlet protection. Fiber rolls intercept runoff, reduce its flow velocity, and provide removal of sediment from the runoff.
- **SE-8: Sandbag Barrier.** A sandbag barrier is a series of sand-filled bags placed on a level contour to intercept or to divert sheet flows. Sandbag barriers placed on a level contour pond sheet flow runoff, allowing sediment to settle out.
- **SE-10: Storm Drain Inlet Protection.** Storm drain inlet protection consists of a sediment filter or an impounding area in, around or upstream of a storm drain, drop inlet, or curb inlet. Storm drain inlet protection measures temporarily pond runoff before it enters the storm drain, allowing sediment to settle.

Erosion and Sediment Control Plans prepared by the Contractor (refer to City Standard Plans and Specifications Section 7-8.6 – Water Pollution Control) will identify site specific BMPs that include the above BMPs (or their equivalent) and will be reviewed and approved by the City Engineer or designee for compliance with NPDES requirements prior to issuance of grading permits.

**Santa Ana River Basin Plan**

The Water Quality Control Plan for the Santa Ana River Basin (Basin Plan) (SARWQCB 1995, as amended) designates beneficial uses and water quality objectives for waterbodies in the region. Specific objectives are provided for the larger water bodies within the region as well as general objectives for ocean waters, bays and estuaries, inland surface waters, and ground waters. In general, narrative objectives require that degradation of water quality does not occur due to increases in pollutant loads that would impact the beneficial uses of a water body.

**IMPACT ANALYSIS**

4.9(a) The proposed project involves grading and excavation, which could result in impacts to water quality.

**Short-Term Construction Impacts**

Project construction would involve demolition, clearing, grading, and excavation, which could result in the transport of sediment into the storm drain system. In addition, construction vehicle tires may be washed to prevent tracking of dust onto City streets, and the construction site may be watered to reduce dust emissions. Construction materials may also be temporarily stockpiled on site until the materials can be used or disposed of off-site. These activities could impact water quality due to erosion of exposed soils and subsequent deposition of particles, sediment, and pollutants on city streets that could be washed into the storm drain system and ultimately to the ocean. Construction has the potential to produce pollutants such as nutrients, heavy metals, toxic chemicals related to construction and cleaning, waste materials including wash water, paints, wood, paper, concrete, food containers and sanitary wastes, fuel and lubricants.
The proposed project’s construction activity would not require a Storm Water Pollution Prevention Plan (SWPPP), as the proposed project would disturb less than one acre. However, the proposed project would comply with the City of Orange Grading Plan requirement relative to erosion control, sediment control and water quality (refer to Existing Regulations below). Thus, less than significant impacts would occur during construction.

**Long-Term Operational Impacts**

The proposed project would result in a negligible change in the amount of impervious surfaces and runoff volumes compared to existing conditions. However, the proposed improvements would not change the types of pollutants that would be present, as compared to existing conditions, since the proposed project involves the modification of existing roadways. Typical roadway pollutants include trash and debris, heavy metals, organic compounds (such as petroleum hydrocarbons), sediments, oils and grease. Additionally, runoff from existing and proposed landscaping may involve pollutants such as bacteria/virus, nutrients, pesticides, herbicides, and oxygen-demanding substances.

In compliance with NPDES, the County of Orange Drainage Area Management Plan (DAMP), and the City’s Local Implementation Procedures (LIP), a project-specific Water Quality Management Plan (WQMP) must be prepared prior to commencement of construction. The WQMP must identify Structural, Non-Structural, and treatment BMPs, with the goal of minimizing pollutants in site runoff to the “Maximum Extent Practicable.” Selection and siting of BMPs are defined based on the evaluation of site constraints, constituents of concern at the receiving waters, soil conditions, and hydraulic conditions. Once completed, the proposed project would become part of the City Municipal Activities Program, which includes weekly street sweeping to minimize trash and debris in the storm drain system.

The proposed project would not contribute substantially to polluted runoff and would not violate water quality standards or otherwise substantially degrade water quality. The WQMP is subject to review and approval by the City’s Public Works Department prior to bidding the project for construction, and verified by the construction inspector. BMPs must be constructed concurrent with street improvements. Compliance with WQMP requirements would reduce long-term impacts to water quality to a less than significant level.

**Existing Regulations**

**City of Orange Grading Plan Requirements**

Prior to issuance of grading permits, the City requires standard Erosion Control, Sediment Control, and Water Quality notes to be included on every grading plan including:

- Sediment from areas disturbed by construction shall be retained on site using structural controls to the Maximum Extent Practicable.
- Stockpiles of soil shall be properly contained to minimize sediment transport from the site to streets, drainage facilities or adjacent properties via runoff, vehicle tracking, or wind.
- Appropriate BMPs for construction-related materials, wastes, spills, or residues shall be implemented to minimize transport from the site to streets, drainage facilities, or adjoining property by wind or runoff.
- Runoff from equipment and vehicle washing shall be contained at construction sites unless treated to remove sediment and other pollutants.
City of Orange – Standard Plans and Specifications

All improvements within the public rights-of-way and easements within the City of Orange shall conform to the Standard Plans and Specifications. The following measure will be required by the City of Orange and is applicable to the proposed project:

7.8.1 – Cleanup and Dust Control

Unless otherwise authorized by the Engineer, all surplus materials shall be removed from the site of the work immediately after completion of the work causing the surplus materials. Unless the construction dictates otherwise, and unless otherwise approved by the Engineer, the Contractor shall furnish and operate a self-loading motor sweeper with spray nozzles at least once each working day to keep paved areas acceptably clean whenever construction, including restoration, is incomplete.

Failure of the Contractor to comply with the Engineer's dust control orders may result in an order to suspend work until the condition is corrected; after filing notice to the Contractor, the Engineer may order this accomplished by others.

7.8.6 – Water Pollution Control

Full size, Erosion and Sediment Control Plans shall be prepared by the Contractor as part of the SWPPP that identify adequate controls to prevent erosion and discharge of sediment off-site.

7.8.7 – Drainage Control

It is anticipated that storm, surface, or other waters will be encountered at various times and locations during the work herein contemplated. The Contractor will be required to control all water encountered during construction and shall use appropriate methods of sediment control and debris barriers to prevent any contaminated water from entering the storm drain piping. These methods shall include the placement of sand bags, filter fabric and fencing, berms, and other temporary barriers as needed to comply with the City’s requirements for construction activities.

Significance Determination Before Mitigation: Less than significant impact.
Mitigation Measures: None required.
Significance After Mitigation: Less than significant impact.

4.9(b) The proposed project would not create a demand for water or involve groundwater extraction, nor would the proposed project result in a substantial change in impervious surface area. Therefore, project implementation would not deplete groundwater supplies or interfere substantially with groundwater recharge. A less than significant impact would occur this issue area.
Significance Determination Before Mitigation: Less than significant impact.
Mitigation Measures: None required.
Significance Determination After Mitigation: Less than significant impact.

4.9(c) The topography within the project limits is generally level. Stormwater from the site is conveyed through the storm drain system along Katella Avenue, and ultimately outlets to the Santa Ana River. The proposed intersection improvements would not result in increased tributary areas, nor alter the existing drainage patterns or cause a change in the course of a stream or river.

The proposed project would result in no change in watershed delineation, construction of new buildings/structures, or significant modifications to topography. The proposed project would involve negligible changes in landscaped areas along Tustin Street and Katella Avenue. Thus, a negligible change in the amount of impervious surfaces and volume of stormwater runoff and flow velocity would occur. All storm drain facilities are adequately sized for existing and after project flows. Therefore, there would be no potential for off-site erosion/siltation. All affected drainage facilities are maintained so as to avoid excessive sediment deposition and have no erosive conditions of concern. The proposed project would not substantially alter the existing drainage pattern of the site or area, or substantially increase the rate or amount of surface runoff such that on- or off-site erosion, sedimentation, or flooding would occur. Thus, a less than significant impact would occur this issue area.

Significance Determination Before Mitigation: Less than significant impact.
Mitigation Measures: None required.
Significance Determination After Mitigation: Less than significant impact.

4.9(d) Existing off-site drainage systems would remain the same and would not be affected by the proposed on-site improvements. Stormwater runoff would continue to be routed to the existing public storm drain system. Therefore, implementation of the proposed project would not substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site. Thus, a less than significant impact would occur for this issue area.

Significance Determination Before Mitigation: Less than significant impact.
Mitigation Measures: None required.
Significance Determination After Mitigation: Less than significant impact.

4.9(e) The project site is within an urbanized area with existing storm drainage facilities. The proposed project is not anticipated to substantially increase the amount of impervious surfaces, since the project site is already paved. Therefore, the proposed project would not create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems. Also, as noted in Response 4.9(a), a WQMP would be prepared for the proposed project, which would identify BMPs to minimize polluted runoff. Thus, the proposed project would not provide a substantial additional source of polluted runoff. Therefore, a less than significant impact would occur for this issue area.

Significance Determination Before Mitigation: Less than significant impact.
Mitigation Measures: None required.
Significance Determination After Mitigation: Less than significant impact.
4.9(f) The project site drains into the existing storm drain system and there are no natural drainages on or adjacent to the project site. In addition, there are no new uses or operations proposed which would degrade water quality as the project site would continue to be used for transportation purposes. As such, there are no other pollutants generated by the proposed project that would not be addressed through construction BMPs identified in a SWPPP and post-construction BMPs identified in a WQMP. Thus, a less than significant impact would occur for this issue area.

**Significance Determination Before Mitigation:** Less than significant impact.

**Mitigation Measures:** None required.

**Significance Determination After Mitigation:** Less than significant impact.

4.9(g) The proposed project does not include the development of housing. Further, according to the Federal Emergency Administration Flood Insurance Rate Map, the project site is not located within a mapped 100-year flood hazard area. Therefore, no impact would occur for this issue area.

**Significance Determination Before Mitigation:** No impact.

**Mitigation Measures:** None required.

**Significance Determination After Mitigation:** No impact.
of the project site from the Pacific Ocean, the proposed project would not be subject to the effects of a tsunami. The project site and the surrounding area are relatively flat and developed and the proposed project would not be subject to the risk of mudflows. Therefore, a less than significant impact would occur for this issue area.

**Significance Determination Before Mitigation:** Less than significant impact.
**Mitigation Measures:** None required.
**Significance Determination After Mitigation:** Less than significant impact.

**4.9(k)** Construction activities could contribute pollutants including heavy metals, trash and debris, sediments, oil and grease, and paint. The potential for erosion is particularly high during the site preparation, grading and excavation phases of construction. The proposed project would be required to prevent the transport of sediments from the site by stormwater runoff and winds during construction through the use of appropriate BMPs (i.e., fiber rolls, sandbag barrier, storm drain inlet protection). These BMPs would be detailed in a SWPPP, in compliance with the latest NPDES Stormwater Regulations. Furthermore, Erosion and Sediment Control Plans prepared by the Contractor as part of the SWPPP (refer to City *Standard Plans and Specifications* Section 7-8.6 – Water Pollution Control) would identify site-specific BMPs, which would be reviewed and approved by the City Engineer or designee for compliance with NPDES requirements prior to issuance of grading permits. Compliance with existing regulations ensures that the proposed project does not impact stormwater runoff during construction activities. Therefore, a less than significant impact would occur for this issue area.

**Significance Determination Before Mitigation:** Less than significant impact.
**Mitigation Measures:** None required.
**Significance Determination After Mitigation:** Less than significant impact.

**4.9(l)** Refer to Response 4.9(a).

**Significance Determination Before Mitigation:** Less than significant impact.
**Mitigation Measures:** None required.
**Significance Determination After Mitigation:** Less than significant impact.

**4.9(m)** Refer to Response 4.9(a).

**Significance Determination Before Mitigation:** Less than significant impact.
**Mitigation Measures:** None required.
**Significance Determination After Mitigation:** Less than significant impact.

**4.9(n)** Refer to Response 4.9(a).

**Significance Determination Before Mitigation:** Less than significant impact.
**Mitigation Measures:** None required.
**Significance Determination After Mitigation:** Less than significant impact.

**4.9(o)** Refer to Response 4.9(c).

**Significance Determination Before Mitigation:** Less than significant impact.
**Mitigation Measures:** None required.
**Significance Determination After Mitigation:** Less than significant impact.
4.9(p) Refer to Response 4.9(a).

**Significance Determination Before Mitigation:** Less than significant impact.
**Mitigation Measures:** None required.
**Significance Determination After Mitigation:** Less than significant impact.
4.10 LAND USE/PLANNING

<table>
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<th>Would the project:</th>
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<th>Less Than Significant With Mitigation Incorporated</th>
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<th>No Impact</th>
</tr>
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<td>(a) Physically divide an established community?</td>
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<td>✗</td>
</tr>
<tr>
<td>(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?</td>
<td>☐</td>
<td>☒</td>
<td>☒</td>
<td>☐</td>
</tr>
<tr>
<td>(c) Conflict with any applicable habitat conservation plan or natural community conservation plan?</td>
<td>☐</td>
<td>☒</td>
<td>☒</td>
<td>☐</td>
</tr>
</tbody>
</table>

IMPACT ANALYSIS

4.10(a) The proposed project involves improvements to existing roadways located within an urbanized commercial area that has been fully developed. Therefore, implementation of the proposed project would not physically divide an established community. No impact would occur for this issue area.

Significance Determination Before Mitigation: No impact.
Mitigation Measures: None required.
Significance After Mitigation: No impact.

4.10(b) The proposed project’s consistency with the policies and regulations of the Orange General Plan and the OMC Title 17, Zoning, are discussed below.

Orange General Plan

Land Use Element

The Orange General Plan land use designation for the four parcels affected by the proposed project is GC (General Commercial). The proposed project does not include any changes to land use designations, therefore no conflicts with land use designations would occur.

Circulation and Mobility Element

Orange General Plan Circulation and Mobility Element Figure CM-2, Master Plan of Streets and Highways, designates Tustin Street as a Major Arterial and Katella Avenue as a Primary Arterial in the project vicinity. The Tustin Street/Katella Avenue intersection is identified as a “critical intersection” in the City’s Critical Intersection Program (Figure CM-2). Critical intersections are intersections with high existing or future anticipated traffic volumes, where improvements are needed to accommodate the volumes. A critical intersection deviates from the established standard intersection design by increasing the number of lanes at the intersection beyond what typically would be required, thereby reducing congestion and delay.

The proposed addition of a right turn pocket and bus turnout are consistent with the both the street designations for Tustin Street and Katella Avenue. Thus, the proposed project would not conflict with Orange General Plan Circulation and Mobility Element Figure CM-2.
Orange Municipal Code

Street rights of way (ROW) are “unzoned” on the Zoning Map. The two properties adjacent to the project site are zoned C-TR1 (Limited Business Tustin Redevelopment Project Area District). OMC Chapter 17.18, Commercial Districts, specifies the development standards for commercial uses and buildings within the C-TR zone.

The proposed project includes the acquisition of small amounts (tapered slivers) of street ROW from the adjacent properties to the west and north.

OMC Section 17.18.030, Permitted Uses

OMC Section 17.18.030 lists uses permitted within the Commercial Districts. The proposed project does not propose any change to zoning designations or uses other than the expansion of ROW, which has no zoning designation (designated “unzoned”) to accommodate the right turn pocket. Therefore, the proposed project would not conflict with OMC Section 17.18.030.

OMC Section 17.18.130, Yard Requirements

OMC Section 17.18.130 establishes a minimum front setback of 10 feet in the C-TR District. The proposed project would increase the ROW width in some locations, and the minimum setback distances between the edge of ROW and buildings would not be met for all affected parcels, as shown in the following table.

<table>
<thead>
<tr>
<th>Affected Parcel</th>
<th>Minimum Building Setback from Tustin Street or Katella Avenue ROW (Existing)</th>
<th>Minimum Building Setback from Tustin Street or Katella Avenue ROW (with Project)</th>
</tr>
</thead>
<tbody>
<tr>
<td>375-481-09 Surface Parking</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>AT&amp;T Authorized Dealer</td>
<td></td>
<td></td>
</tr>
<tr>
<td>El Pollo Loco</td>
<td></td>
<td></td>
</tr>
<tr>
<td>375-481-12 1302 N. Tustin Street</td>
<td>9.38 feet</td>
<td>1.5 – 9.38 feet</td>
</tr>
<tr>
<td>AT&amp;T Authorized Dealer</td>
<td></td>
<td></td>
</tr>
<tr>
<td>375-481-13 1300 N. Tustin Street</td>
<td>22.5 feet</td>
<td>10.5 feet</td>
</tr>
<tr>
<td>The Vitamin Shoppe</td>
<td></td>
<td></td>
</tr>
<tr>
<td>375-481-10 1611 E. Katella Avenue</td>
<td>58.5 feet</td>
<td>54 feet</td>
</tr>
<tr>
<td>El Pollo Loco</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

One of the subject parcels, Parcel 375-481-12, occupied by AT&T, currently does not meet the minimum 10-foot setback. The proposed building setback would range from 1.5 feet at the building’s southeast corner to 9.38 feet at the northeast building corner (existing condition), due to the tapering of the right turn pocket which begins at the building’s midpoint. Thus, the proposed project would create or exacerbate a nonconforming condition for this parcel. However, OMC Section 17.38.060, Nonconformities Connected With Public Acquisition, allows for the creation of nonconforming conditions due to property acquisition for a public use. Under this OMC section, if a lot does not comply with a development standard due to acquisition of a portion of the property for a public use, the remainder of the lot is considered a conforming lot. Therefore, impacts would be less than significant for this parcel.
The remaining two parcels with buildings, The Vitamin Shoppe and El Pollo Loco, currently meet the setback requirements. Thus, the proposed project would not create or exacerbate a nonconforming condition for these parcels, and less than significant impacts would occur for these parcels.

17.18.150, Off-Street Parking and Loading

The proposed widening would require the acquisition of street ROW from the four adjacent commercially zoned properties. The proposed project would result in the loss of two parking spaces north of the AT&T building and west of Tustin Street (Parcel 375-481-09). A reduction in on-site parking could result in fewer parking spaces than specified in OMC standards. However, OMC Section 17.38.060 allows for the creation of nonconforming conditions due to property acquisition for a public use.

Also, the proposed project would reconstruct two driveways, one each on Tustin Street and Katella Avenue, and would not create or impacts to drive aisles on any of the commercial properties. Therefore, the proposed project would not create a new nonconforming use or result in a conflict with the OMC. A less than significant impacts would occur in this regard.

17.18.160, Landscaping

OMC Chapter 16.50, Landscaping Requirements, establishes a requirement for front yard landscaping of the entire setback area or ten feet minimum planter width, whichever is greater on the two affected properties. The proposed project would not impact the front yard landscaping for El Pollo Loco or The Vitamin Shoppe.

However, the proposed project would impact the AT&T building property, as the existing landscape area adjacent to Tustin Street would be removed and reduced in size when replaced, as the setback area starting at the building’s midpoint would be tapered from 9.38 feet to 1.5 feet. Thus, the proposed project would result in less on-site landscaping for the AT&T building property than currently exists, and could eliminate all landscaping on Tustin Street adjacent to the AT&T building property. However, OMC Section 17.38.060 allows for the creation of nonconforming conditions due to property acquisition for a public use. Therefore, the proposed project would not create a new nonconforming use or result in an inconsistency with OMC landscaping standards. A less than significant impact would occur in this regard.

The proposed project would involve the removal and replacement of public street trees. There are two palm trees along Tustin Street and one palm tree along Katella Avenue, which are not native or protected by City Ordinance. One palm tree along Tustin Street would be removed and not replaced due to its location within the new ROW. The second palm tree along Tustin Street and the palm tree along Katella Avenue would be replaced in conformance with the City’s Street Tree Master Plan, therefore impacts would be less than significant.

In addition, the proposed project would remove two pine trees on private property adjacent to the AT&T building, and for purposes of this analysis, it is assumed that the two pine trees would not be replaced given that final ROW details, including site distance and visibility, are needed to determine if any of trees could be replaced. OMC Section 17.18.160 requires trees throughout commercial sites within all parking areas and along all property lines, including side yards and backyards, where buildings are away from the property line. The AT&T building is part of a larger commercial center and it is unclear if the two pine trees would be replaced, so for purposes of this analysis, it is assumed that the trees would not be replaced.

However, OMC Section 17.38.060 allows for the creation of nonconforming conditions due to property acquisition for a public use. Therefore, the proposed project would not create a new nonconforming use or
result in an inconsistency with *OMC* landscaping standards. A less than significant impact would occur in this regard.

**Right of Way Acquisition**

Right of way acquisition and negotiations are required to follow the Code of Federal Regulations, Part 24, Section 49. The regulations require that owners of property to be acquired due to a proposed project be compensated for the fair market value of the property based on an appraisal, including temporary construction easements and damages (if any) to the remaining portions of the property in accordance with the Uniform Relocation Assistance and Real Property Acquisition Act of 1970 as amended. Compliance with these requirements would reduce impacts to less than significant.

**Significance Determination Before Mitigation:** Less than significant impact.
**Mitigation Measures:** None required.
**Significance Determination After Mitigation:** Less than significant impact.

4.10(e) Refer to Response 4.4(f).

**Significance Determination Before Mitigation:** No impact.
**Mitigation Measures:** None required.
**Significance Determination After Mitigation:** No impact.
### 4.11 MINERAL RESOURCES

<table>
<thead>
<tr>
<th>Would the project:</th>
<th>Potentially Significant Impact</th>
<th>Less Than Significant Impact With Mitigation Incorporated</th>
<th>Less Than Significant Impact</th>
<th>No Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>(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?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
</tr>
<tr>
<td>(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?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
</tr>
</tbody>
</table>

### IMPACT ANALYSIS

**4.11(a)** The proposed project involves improvements to existing roadways located within an urbanized commercial area that has been fully developed. The proposed project does not include mineral resource extraction. According to *Orange General Plan* Open Space and Conservation Element Figure OSC-2, the project site does not contain mineral resources that would be “regionally significant.” Therefore, implementation of the proposed project would not 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 would occur for this issue area.

**Significance Determination Before Mitigation:** No impact.  
**Mitigation Measures:** None required.  
**Significance Determination After Mitigation:** No impact.

**4.11(b)** As discussed in Response 4.11(a), the proposed project would not 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. The *Orange General Plan*, specific plans, or any other land use plans do not designate the project area as a locally important mineral resources recovery site. Therefore, no impact would occur for this issue area.

**Significance Determination Before Mitigation:** No impact.  
**Mitigation Measures:** None required.  
**Significance Determination After Mitigation:** No impact.
4.12 NOISE

<table>
<thead>
<tr>
<th>Would the project result in:</th>
<th>Potentially Significant Impact</th>
<th>Less Than Significant Impact With Mitigation Incorporated</th>
<th>Less Than Significant Impact</th>
<th>No Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>(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?</td>
<td>□</td>
<td>☒</td>
<td>☒</td>
<td>☐</td>
</tr>
<tr>
<td>(b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?</td>
<td>□</td>
<td>☒</td>
<td>☒</td>
<td>☐</td>
</tr>
<tr>
<td>(c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?</td>
<td>□</td>
<td>☒</td>
<td>☒</td>
<td>☐</td>
</tr>
<tr>
<td>(d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?</td>
<td>□</td>
<td>☒</td>
<td>☒</td>
<td>☐</td>
</tr>
<tr>
<td>(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?</td>
<td>□</td>
<td>☒</td>
<td>☒</td>
<td>☐</td>
</tr>
<tr>
<td>(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?</td>
<td>□</td>
<td>☒</td>
<td>☒</td>
<td>☐</td>
</tr>
</tbody>
</table>

REGULATORY SETTING

Orange General Plan Noise Element

The purpose of the Noise Element is to coordinate the community’s land uses with the existing and future noise environment, and to design measures intended to minimize or avoid community exposure to excessive noise levels. The goals, policies, and implementation programs of the Noise Element address seven issues: 1) noise and land use compatibility; 2) vehicular traffic noise; 3) train noise; 4) aircraft noise; 5) noise associated with mixed-use development; 6) industrial noise; and 7) construction, maintenance, and nuisance noise.


OMC Section 8.24.070 establishes conditions that are considered exempt from the provisions of the Code. Exemption E relates to construction noise and states:

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 do not take place between the hours of 8:00 p.m. and 7:00 a.m. on weekdays, including Saturday, or at any time on Sunday or a Federal holiday.

IMPACT ANALYSIS

A project creates a significant noise impact if noise criteria as established in the Orange General Plan are exceeded, and the project contributes a measurable amount to the existing noise environment. Three dB is considered the threshold for a “measurable” noise increase, because generally a three dB change is barely perceptible to the human ear. As such, an impact is considered potentially significant if the project increases CNEL from below 70 dB to above 70 dB at any school, hospital, or commercial area; AND the project increases CNEL by three dB or more which is considered to be a noticeable change in the ambient noise level.
4.12(a) Noise impacts can result from short-term construction activities and from long-term changes in noise levels.

**Short-Term Construction Noise Impacts**

Construction activities create short-term noise, which can be disturbing to adjacent noise-sensitive uses, such as residential uses. Other nearby commercial uses are not considered to be noise-sensitive. Temporary construction noise impacts can vary markedly depending on the equipment used and its activity level. Short-term construction noise impacts for roadway improvement projects tend to occur in discrete phases dominated initially by demolition, then by grading and paving. The demolition and earth-moving sources are the noisiest with equipment noise typically ranging from 75 to 90 dB at a distance of 50 feet from the source.

Construction activities are anticipated to result in a temporary or periodic increase in ambient noise. However, OMC Chapter 8.24 exempts construction from the City noise regulations during the hours to 8:00 p.m. to 7:00 a.m. on weekdays and on Saturdays, Sundays and federal holidays, inclusive of engine “warm-up” or starting prior to 7:00 a.m. The OMC provision exempts construction-generated noise occurring between the restricted hours, from applicable noise standards, provided that all construction equipment is fitted with factory-installed muffling devices and maintained in good working order. This OMC provision recognizes that short-term construction noise generated during the least noise sensitive hours of the day is a normal part of development and does not cause a significant impact. Implementation of the proposed project would not result in a substantial temporary or periodic increase in ambient noise levels and a less than significant impact would occur.

**Long-Term Noise Impacts**

The proposed project would not generate any new sources of noise after the completion of construction. No change in traffic volume would be caused by the roadway widening. An incremental increase in noise levels is expected to occur over time due to growth in traffic volumes throughout the area regardless of whether the proposed project is completed.

The *Orange General Plan Environmental Impact Report (GP EIR)* included an analysis of noise levels in 2030 with the traffic volumes anticipated with growth under the General Plan and any circulation plan improvements, which includes the proposed project. *GP EIR* Table 5.10-9, Predicted Traffic Noise Levels, Future 2030 Conditions and Future 2030 General Plan Buildout Conditions, shows that the noise levels along Katella Avenue from Cambridge Street to SR-55 would range between 69.1 to 69.4 dB, and along Tustin Street from Collins Avenue to Taft Avenue would range between 68.2 to 69.1 dB in 2030. These noise levels are below 70 dB for a commercial area. Also, the *GP EIR* concluded that future noise levels from traffic in the project vicinity would increase no more than 0.4 dB in the year 2030.

While no changes are proposed in the location of street centerlines or existing traffic lanes, the addition of a right turn pocket would place one lane of traffic approximately 12 feet closer to the adjacent buildings along Tustin Street resulting in higher traffic noise at these buildings due to the reduced separation distance, and approximately 4 feet closer with the bus turnout lane on Katella Avenue.

The anticipated noise increase for El Pollo Loco, The Vitamin Shoppe, and the AT&T store businesses along Tustin Street and Katella Avenue could range from 0.1 to 1.5 dB. However, the commercial businesses are not considered sensitive noise receptors, and the change in noise level less than 3.0 dB, which is not perceptible in most situations. Therefore, long-term project-related noise increases would be less than significant.
Significance Determination Before Mitigation: Less than significant impact.
Mitigation Measures: None required.
Significance Determination After Mitigation: Less than significant impact.

4.12(b) Construction activities can generate ground-borne vibration. 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 construction site vicinity varies depending on soil type, ground strata, and characteristics of the receiver building. 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. Ground-borne vibrations from construction activities rarely reach levels that damage structures.

The proposed project would not involve activities that generate excessive vibration, such as blasting or pile-driving. In addition, OMC Section 8.24.070.E exempts all construction activities that are conducted Monday through Saturday between the hours of 7:00 a.m. and 8:00 p.m. from the City’s Noise Ordinance provisions. Construction is not permitted on Sundays or federal holidays. This exemption is included in the OMC in recognition that construction activities undertaken during daytime hours are a part of living in an urban environment and do not cause a significant disruption, since construction is temporary and is limited to the least noise sensitive hours of the day. For these reasons, vibration impacts associated with construction would be less than significant.

Significance Determination Before Mitigation: Less than significant impact.
Mitigation Measures: None required.
Significance After Mitigation: Less than significant impact.

4.12(c) Refer to Response 4.12(a).

Significance Determination Before Mitigation: Less than significant impact.
Mitigation Measures: None required.
Significance After Mitigation: Less than significant impact.

4.12(d) Refer to Response 4.12(a).

Significance Determination Before Mitigation: Less than significant impact.
Mitigation Measures: None required.
Significance After Mitigation: Less than significant impact.

4.12(e) The project site is neither located within an airport land use plan, nor within two miles of a public airport. The nearest airport is John Wayne Airport, located approximately eight miles south of the project site in the city of Santa Ana. Therefore, the proposed project would not expose people residing or working in the project site to excessive noise levels related to a public airport or public use airport. No impact would occur for this issue area.

Significance Determination Before Mitigation: No impact.
Mitigation Measures: None required.
Significance Determination After Mitigation: No impact.
4.12(f) The proposed project is not within the vicinity of a private airstrip. Therefore, the proposed project would not expose people on the project site to excessive noise levels related to a private airstrip. No impact would occur for this issue area.

**Significance Determination Before Mitigation:** No impact.

**Mitigation Measures:** None required.

**Significance Determination After Mitigation:** No impact.
4.13 POPULATION AND HOUSING

<table>
<thead>
<tr>
<th>Would the project:</th>
<th>Potentially Significant Impact</th>
<th>Less Than Significant Impact With Mitigation Incorporated</th>
<th>Less Than Significant Impact</th>
<th>No Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>(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)?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
</tr>
<tr>
<td>(b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
</tr>
<tr>
<td>(c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
</tr>
</tbody>
</table>

IMPACT ANALYSIS

4.13(a) The proposed project involves improvements to existing streets within a developed, well-established commercial area of the City. The proposed project does not include new homes or extend roadways or other infrastructure into undeveloped areas. Therefore, the proposed project would not induce population growth. No impact would occur for this issue area.

Significance Determination Before Mitigation: No impact.
Mitigation Measures: None required.
Significance Determination After Mitigation: No impact.

4.13(b) The proposed project involves roadway improvements. No housing exists within the project site. Therefore, the proposed project would not displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere. No impact would occur for this issue area.

Significance Determination Before Mitigation: No impact.
Mitigation Measures: None required.
Significance Determination After Mitigation: No impact.

4.13(c) No housing exists within the project site, and thus no people reside on-site. Therefore, the proposed project would not displace substantial numbers of people, necessitating the construction of replacement housing elsewhere. No impact would occur for this issue area.

Significance Determination Before Mitigation: No impact.
Mitigation Measures: None required.
Significance Determination After Mitigation: No impact.
4.14 PUBLIC SERVICES

<table>
<thead>
<tr>
<th>Would the project:</th>
<th>Potentially Significant Impact</th>
<th>Less Than Significant Impact With Mitigation Incorporated</th>
<th>Less Than Significant Impact</th>
<th>No Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) Would the project result in substantial adverse physical impacts associated with the provision of or 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:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(i) Fire Protection?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(ii) Police Protection?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(iii) Schools?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(iv) Parks?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(v) Other public facilities?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

IMPACT ANALYSIS

4.14(a)(i) The project site is located within the service area of the City of Orange Fire Department. The Orange Fire Department operates eight stations and has a staff of approximately 136 with 124 sworn fire-fighting personnel. The fire station nearest to the project site is Fire Station 3, located at 1910 N. Shaffer Street. Fire Station 3 is located approximately 1.1 miles from the project site.

The proposed project involves improvements to existing streets, which would not increase the City’s employment or population. Additionally, the proposed project does not involve changes in land use that could result in a long-term increase in the demand for emergency services over existing conditions. Also, construction of the proposed project would not interfere substantially with emergency response (police and fire), as concluded in Response 4.8(g). Therefore, the proposed project is not anticipated to result in an increase in the need of fire protection that would require new or significant fire facilities to be constructed. Thus, a less than significant impact would occur for this issue area.

Significance Determination Before Mitigation: Less than significant impact.
Mitigation Measures: None required.
Significance Determination After Mitigation: Less than significant impact.

4.14(a)(ii) The project site is located within the service area of the City of Orange Police Department (OPD). The OPD headquarters and main police station are located at 1107 North Batavia Street. OPD also maintains Police substations in Santiago Canyon and at the Block at Orange. OPD has approximately 167 sworn officers.

The proposed project involves improvements to existing streets, which would not increase the City’s employment or population. Additionally, the proposed project does not involve changes in land use that could result in a long-term increase in the demand for emergency services over existing conditions. Also, construction of the proposed project would not interfere substantially with emergency response (police and fire), as concluded in Response 4.8(g). Therefore, the proposed project is not anticipated to result in an increase in the need of police protection that would require new or significant police facilities to be constructed. Thus, a less than significant impact would occur for this issue area.

Significance Determination Before Mitigation: Less than significant impact.
Mitigation Measures: None required.
Significance Determination After Mitigation: Less than significant impact.
4.14(a)(iii) The proposed project involves improvements to existing streets, which would not increase the City’s population or school enrollment. Therefore, the proposed project would not generate an increased demand for school facilities, change existing student/classroom ratios, or necessitate new or expanded school facilities. Therefore, no impact would occur for this issue area.

**Significance Determination Before Mitigation:** No impact.

**Mitigation Measures:** None required.

**Significance Determination After Mitigation:** No impact.

4.14(a)(iv) The proposed project involves improvements to existing streets, which would not increase the City’s population. Therefore, the proposed project does not directly affect parkland. Further, the proposed project would not generate an increase in demand on existing public or private parks or other recreational facilities that would result in or increase physical deterioration of park facilities. Therefore, no impact would occur for this issue area.

**Significance Determination Before Mitigation:** No impact.

**Mitigation Measures:** None required.

**Significance Determination After Mitigation:** No impact.

4.14(a)(v) The proposed project involves improvements to existing streets, which would not increase the City’s population. Thus, the proposed project is not anticipated to adversely affect other public facilities, such as libraries. Therefore, no impact would occur for this issue area.

**Significance Determination Before Mitigation:** No impact.

**Mitigation Measures:** None required.

**Significance Determination After Mitigation:** No impact.
4.15 RECREATION

<table>
<thead>
<tr>
<th>Would the project:</th>
<th>Potentially Significant Impact</th>
<th>Less than Significant Impact With Mitigation Incorporated</th>
<th>Less Than Significant Impact</th>
<th>No Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>(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?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
</tr>
<tr>
<td>(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?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
</tr>
</tbody>
</table>

IMPACT ANALYSIS

4.15(a) The proposed project involves improvements to existing streets. Therefore, the proposed project does not directly affect parkland. Further, development of housing is not proposed as part of the project. As such, the proposed project would not increase population, generating an increase in demand on existing public or private parks or other recreational facilities that would either result in or increase physical deterioration of park facilities. Therefore, no impact would occur for this issue area.

**Significance Determination Before Mitigation:** No impact.

**Mitigation Measures:** None required.

**Significance Determination After Mitigation:** No impact.

4.15(b) The proposed project involves improvements to existing streets. The proposed project does not involve the construction or expansion of recreational facilities and would not result in the need for new or expanded recreational facilities that could have an adverse effect on the environment. Therefore, no impact would occur for this issue area.

**Significance Determination Before Mitigation:** No impact.

**Mitigation Measures:** None required.

**Significance Determination After Mitigation:** No impact.
4.16 TRANSPORTATION/TRAFFIC

<table>
<thead>
<tr>
<th>Would the project:</th>
<th>Potentially Significant Impact</th>
<th>Less Than Significant Impact With Mitigation Incorporated</th>
<th>Less Than Significant Impact</th>
<th>No Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>(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?</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
<td>☐</td>
</tr>
<tr>
<td>(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?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
</tr>
<tr>
<td>(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?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
</tr>
<tr>
<td>(d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
</tr>
<tr>
<td>(e) Result in inadequate emergency access?</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
<td>☐</td>
</tr>
<tr>
<td>(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 supporting alternative transportation (e.g., bus turnouts, bicycle racks)?</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
<td>☐</td>
</tr>
</tbody>
</table>

IMPACT ANALYSIS

4.16(a) The proposed project would provide a right turn pocket length from midpoint of the AT&T building to the proposed curb return including taper of approximately 132 feet. Considering the taper length of 60 feet (per Caltrans Highway Design Manual Chapter 400, the bay taper in an urban area should be 60 to 90 feet), the available pocket length is approximately 60 feet. In addition, the proposed project would maintain sidewalks and pedestrian access along both street frontages.

The Orange General Plan Circulation and Mobility Element describes the City’s Critical Intersection Program. Intersections serve as traffic control points for the circulation system, regulating the flow of vehicles along City streets and sometimes limiting the capacity of the system. In the long-term, system capacity and efficiency can both be increased if intersections are designed to handle future anticipated traffic volumes. One way of providing additional intersection capacity at critical locations is through the use of special intersection configurations known as “critical intersections.” Critical intersections deviate from typical City design standards by increasing the number of lanes at an intersection beyond what typically would be required. By increasing capacity at the intersection, the circulation link increases overall system capacity. Orange General Plan Figure CM-2, City Master Plan of Streets and Highways, identifies the locations of critical intersections within Orange.

The Orange General Plan Circulation and Mobility Element Figure CM-2, Master Plan of Streets and Highways, designates Tustin Street as a Major Arterial and Katella Avenue as a Primary Arterial in the project vicinity. The Tustin Street/Katella Avenue intersection is identified as a “critical intersection” in the City’s Critical Intersection Program (Figure CM-2). Critical intersections are intersections with high existing or future anticipated traffic volumes, where improvements are needed to accommodate the volumes. A critical intersection deviates from the established standard intersection design by increasing the number of lanes at the intersection beyond what typically would be required, thereby reducing delay.
The proposed project would not generate additional traffic or change circulation patterns, but would enhance capacity and efficiency at the intersection along with improving the level of service over existing conditions. The northeast, southeast, and southwest corners of the intersection have previously been modified. The proposed project would install critical intersection improvements at the northwest corner, thus fully implementing the improvements anticipated in the Orange General Plan Circulation and Mobility Element. Therefore, less than significant impacts would occur for this issue area.

Significance Determination Before Mitigation: Less than significant impact.
Mitigation Measures: None required.
Significance After Mitigation: Less than significant impact.

4.16(b) In the City, the Orange County Transit Authority (OCTA) Congestion Management Plan roadway system includes one intersection, the SR-55 northbound and southbound ramps at Katella Avenue. This intersection is located near the project site. However, as discussed in Response 4.16(a), the proposed project would not generate additional traffic or change circulation patterns. Therefore, no impact would occur for this issue area.

Significance Determination Before Mitigation: No impact.
Mitigation Measures: None required.
Significance Determination After Mitigation: No impact.

4.16(c) The proposed project would not 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 as no airports are located near the project site. Therefore, no impact would occur for this issue area.

Significance Determination Before Mitigation: No impact.
Mitigation Measures: None required.
Significance Determination After Mitigation: No impact.

4.16(d) The existing surrounding circulation network would not change with the implementation of the proposed project, and the existing driveways for El Pollo Loco, The Vitamin Shoppe, AT&T Retail Store, and the larger Tuskatella Center would remain in their current locations providing access to Tustin Street and Katella Avenue.

Also, the proposed project would not result in the creation of a traffic hazard resulting from a design feature or proposed incompatible use. The purpose of the proposed project is to improve the operation of the intersection through the addition of a dedicated right turn lane and bus turnout, which would reduce delay and potential vehicle conflicts due to vehicle turning movements and buses blocking travel lanes. No curves or other substantial changes to the roadway alignment are proposed, and no new uses are proposed. Therefore, the proposed project would not result in incompatible uses or traffic hazards. No impact would occur for this issue area.

Significance Determination Before Mitigation: No impact.
Mitigation Measures: None required.
Significance Determination After Mitigation: No impact.
4.16(e) The proposed project would retain the existing roadway network and access to commercial properties, thus ensuring emergency access is maintained.

During construction, the City would close traffic lanes on Tustin Street and Katella Avenue to allow construction activities within the road ROW. The City would maintain a minimum of two traffic lanes in each direction on Tustin Street and Katella Avenue, within the construction area, so that reasonable two-way traffic flow through the intersection is maintained at all times. In addition, the City’s construction contractor would implement traffic control measures to ensure traffic safety during construction. Traffic control measures would be identified in a Traffic Control Plan prepared by a California-licensed Traffic Engineer (retained by the City’s construction contractor) and approved by the City Engineer or designee in consultation with the City’s Traffic Engineer prior to the start of construction. Traffic control may involve signage, use of delineators, flashing arrow signs, and/or temporary lane lines at the discretion of the City Engineer. All traffic control would conform to the provisions of the Work Area Traffic Control Handbook. These standard requirements would reduce impacts to less than significant.

The City of Orange Emergency Operations Plan provides the emergency response and evacuation plans for the project site and vicinity in the event of a natural disaster, technological incident, or nuclear defense operation. The Plan is directed toward large scale disasters and does not apply to day-to-day emergencies or the routine procedures used to respond to these emergencies. All City arterials are recognized as primary emergency response routes. According to Orange General Plan Public Safety Element Figure PS-4: Generalized Evacuation Corridors, Katella Avenue is identified as an evacuation corridor. Therefore, no permanent change to the use of Katella Avenue as an evacuation corridor would occur. Implementation of the proposed project would not result in inadequate emergency access. Impacts would be less than significant for this issue area.

**Significance Determination Before Mitigation:** Less than significant impact.
**Mitigation Measures:** None required.
**Significance Determination After Mitigation:** Less than significant impact.

4.16(f) A significant impact may occur if a project would conflict with adopted policies or involve modification of existing alternative transportation facilities located on- or off-site. The proposed project would not conflict with adopted policies, plans, or programs supporting alternative transportation. No on-street bike lanes exist on either Tustin Street or Katella Avenue in the vicinity of the project site, however, sidewalks exist on both streets. OCTA operates bus routes on both Tustin Street and Katella Avenue.

The proposed project would maintain sidewalks on Tustin Street and Katella Avenue, would not impact the existing OCTA bus stops along Tustin Street, and would improve the OCTA bus stops along Katella Avenue with a bus turnout lane in the project vicinity. As such, the proposed project is consistent with City adopted plans and policies supporting alternative transportation. No impact would occur for this issue area.

**Significance Determination Before Mitigation:** No impact.
**Mitigation Measures:** None required.
**Significance Determination After Mitigation:** No impact.
4.17 UTILITIES/SERVICE SYSTEMS

<table>
<thead>
<tr>
<th>Would the project:</th>
<th>Potentially Significant Impact</th>
<th>Less than Significant Impact With Mitigation Incorporated</th>
<th>Less Than Significant Impact</th>
<th>No Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?</td>
<td>☐</td>
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</tr>
<tr>
<td>(b) Require or result in the construction of new water or wastewater treatment or collection facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
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</tr>
<tr>
<td>(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?</td>
<td>☐</td>
<td>☐</td>
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<td>☐</td>
</tr>
<tr>
<td>(d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?</td>
<td>☐</td>
<td>☐</td>
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</tr>
<tr>
<td>(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?</td>
<td>☐</td>
<td>☐</td>
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</tr>
<tr>
<td>(f) Be served by a landfill with insufficient permitted capacity to accommodate the project’s solid waste disposal needs?</td>
<td>☐</td>
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<td>☐</td>
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<tr>
<td>(g) Comply with federal, state, and local statutes and regulations related to solid wastes</td>
<td>☐</td>
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</tr>
<tr>
<td>(h) d) Have significant effects on energy resources as described in Appendix F of the State CEQA Guidelines?</td>
<td>☐</td>
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<td>☐</td>
</tr>
</tbody>
</table>

IMPACT ANALYSIS

4.17(a) The proposed project involves improvements to existing streets. As such, the proposed project would not result in additional water use, wastewater generation, increases in wastewater flows or increases in water consumption that could affect wastewater treatment capacity. No new or expanded wastewater treatment facilities would be constructed or required as a result of the proposed project. Based on this consideration, the proposed project would not exceed wastewater treatment requirements of the Regional Water Quality Control Board. Therefore, no impact would occur for this issue area.

Significance Determination Before Mitigation: No impact.
Mitigation Measures: None required.
Significance Determination After Mitigation: No impact.

4.17(b) Delivery of domestic water service in the City is provided by the Public Works Department’s Water Division. The City is responsible for the installation and maintenance of the entire water network system. Also, the City of Orange Public Works Department is responsible for installation and maintenance of local wastewater collection facilities, which convey wastewater to Orange County Sanitation District trunk sewers.

The proposed project involves improvements to existing streets. As such, the proposed project would not result in additional water use, wastewater generation, increases in wastewater flows or increases in water consumption that could affect wastewater treatment capacity. Therefore, the proposed project would not require the construction of new water or wastewater treatment facilities or the expansion of existing facilities. Thus, no impact would occur for this issue area.
Significance Determination Before Mitigation: No impact.
Mitigation Measures: None required.
Significance Determination After Mitigation: No impact.

4.17(c) The proposed project involves widening existing roadways. Changes to impervious surfaces and stormwater runoff would be negligible since existing landscaped areas would be relocated as part of the proposed project. Adequate stormwater conveyance infrastructure (i.e., curb, gutter, storm drain inlets, and storm drains) is already in place at the project site and would be relocated to accommodate stormwater flows. The proposed project would relocate the curb and gutter to the new roadway limits and would accommodate the same volume of street flow, as existing conditions. No changes to the drainage pattern or the course of surface runoff would result from project implementation. Therefore, no new or expanded stormwater conveyance facilities that could result in significant environmental effects are proposed or required to serve the proposed project. Thus, a less than significant impact would occur for this issue area.

Significance Determination Before Mitigation: Less than significant impact.
Mitigation Measures: None required.
Significance Determination After Mitigation: Less than significant impact.

4.17(d) Refer to Responses 4.17(a) and 4.17(b).

Significance Determination Before Mitigation: Less than significant impact.
Mitigation Measures: None required.
Significance Determination After Mitigation: Less than significant impact.

4.17(e) Refer to Response 4.17(a).

Significance Determination Before Mitigation: Less than significant impact.
Mitigation Measures: None required.
Significance Determination After Mitigation: Less than significant impact.

4.17(f) Trash, recyclables, and green waste within the City of Orange are collected by CR&R Waste & Recycling Services. The proposed project would be served by the Olinda Alpha Landfill, located at 1942 North Valencia Avenue in Brea. This landfill is permitted to accept up to 8,000 tons of solid waste per day and currently accepts a daily average of approximately 6,000 tons of solid waste per day. The anticipated closure date for the landfill is in 2021.

Improvements to existing transportation infrastructure would not involve construction of habitable structures, an increase in the City’s population, or an intensification of land use that could increase demand for solid waste disposal facilities. No long-term generation of solid waste would result from the proposed project.

During construction, debris would be generated and disposed of at an approved landfill. Solid waste would include demolition debris and concrete/asphalt that would be removed. As a standard practice, the City requires the contractor to recycle all usable asphalt, which substantially reduces waste disposal volumes. Adequate landfill capacity exists to accommodate the proposed project’s solid waste, and the proposed project would not cause area landfills to exceed permitted capacity. Therefore, the proposed project would not result in significant impacts to solid waste landfill capacity. A less than significant impact would occur for this issue area.
Significance Determination Before Mitigation: Less than significant impact.
Mitigation Measures: None required.
Significance Determination After Mitigation: Less than significant impact.

4.17(g) The proposed project would comply with all regulations regarding the disposal of solid waste. Implementation of the proposed project would not result in excessive production of solid waste that would exceed existing capacity within the landfill. Therefore, a less than significant impact would occur for this issue area.

Significance Determination Before Mitigation: Less than significant impact.
Mitigation Measures: None required.
Significance Determination After Mitigation: Less than significant impact.

4.17(h) Energy conservation is an important factor in reducing greenhouse gas emissions that contribute to climate change. The proposed project would require short-term energy use by equipment during project construction; however, this impact would be mitigated by existing State air quality regulations for off-road construction equipment (e.g., limits on idling, requirements for upgrading to Tier 3 or Tier 4 engines), which also have the effect of reducing energy use. These control measures and the small-scale and limited duration of construction activities would reduce impacts to less than significant.

No change to long-term energy use would result from the proposed project since no new buildings or other activities are proposed that would consume energy on-site or generate additional traffic or other energy-consuming activities off-site; therefore, long-term impacts would be less than significant.

Significance Determination Before Mitigation: Less than significant impact.
Mitigation Measures: None required.
Significance Determination After Mitigation: Less than significant impact.
4.18 MANDATORY FINDINGS OF SIGNIFICANCE

<table>
<thead>
<tr>
<th>(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?</th>
<th>Potentially Significant Impact</th>
<th>Less than Significant With Mitigation Incorporated</th>
<th>Less Than Significant Impact</th>
<th>No Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>(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?)</td>
<td>☐ ☐ ☒ ☐</td>
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</tr>
<tr>
<td>(c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?</td>
<td>☐ ☒ ☐ ☐</td>
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</tr>
</tbody>
</table>

IMPACT ANALYSIS

4.18(a) Project construction would occur within an existing roadway, adjacent to commercially developed properties. The proposed project would not directly affect any sensitive habitat or wildlife populations. The landscaping impacted by the proposed project consists of turf, ornamental shrubs, and street or private trees. No sensitive habitats are located within the construction area. No impact to biological resources would occur with the proposed project.

There are no listed historical structures or known archeological or paleontological resources within the proposed project site. Compliance with existing regulations during construction would reduce impacts, if any, to unidentified buried cultural resources to less than significant.

**Significance Determination Before Mitigation:** Less than significant impact.

**Mitigation Measures:** None required.

**Significance Determination After Mitigation:** Less than significant impact.

4.18(b) Based on the analysis contained in this Initial Study, which considered cumulative impacts, the proposed project would not result in significant impacts to aesthetics, agricultural and forestry resources, biological resources, cultural resources, geology and soils, greenhouse gas emissions, hazards and hazardous materials, hydrology and water quality, land use and planning, mineral resources, population and housing, public services, recreation, transportation and traffic, and utilities and service systems. Mitigation measures recommended for air quality (Mitigation Measure AQ-1) and hazards and hazardous materials (Mitigation Measure HAZ-1), reduce impacts to less than significant. Other cumulative projects would also be required to implement mitigation to reduce project-specific impacts to less than significant levels. As such, the proposed project would not have impacts that are individually limited, but cumulatively considerable. Thus, a less than significant impact would occur for this issue area.

**Significance Determination Before Mitigation:** Potentially significant impact.

**Mitigation Measures:** Refer to Mitigation Measures AQ-1 and HAZ-1.

**Significance Determination After Mitigation:** Less than significant impact with mitigation incorporated.
4.18(c) The proposed project would result in short-term adverse environmental impacts that would affect humans both directly and indirectly. However, by compliance with existing regulations and/or mitigation measures related to construction emissions, construction noise, construction erosion, water quality, hazards and hazardous materials, impacts would be less than significant.

Significance Determination Before Mitigation: Potentially significant impact.
Mitigation Measures: Refer to Mitigation Measures AQ-1 and HAZ-1.
Significance Determination After Mitigation: Less than significant impact with mitigation incorporated.
4.19 REFERENCES


City of Orange, Orange General Plan, March 2010.


City of Orange, Orange Municipal Code: Code of Ordinances, Codified through Ordinance No. 05-16, enacted June 14, 2016 (Supp. No. 35).


City of Orange, Master Street Tree Plan. October 26, 1999.

# 5.0 MITIGATION MONITORING AND REPORTING PROGRAM

<table>
<thead>
<tr>
<th>Mitigation Measure No.</th>
<th>Mitigation Measure or Existing Regulation</th>
<th>Time Frame for Implementation</th>
<th>Responsible Monitoring Agency</th>
<th>Verification of Compliance</th>
</tr>
</thead>
<tbody>
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<td></td>
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</tbody>
</table>

## AESTHETICS

### Existing Regulation

Orange Municipal Code (OMC) – Chapter 17.12.030

- Lighting provides restrictions with respect to lighting. The following provisions are applicable to the proposed project:
  
  A. Lighting on any premises shall be directed controlled, screened or shaded in such a manner as not to shine directly on surrounding premises. Furthermore, lighting on any residential property shall be controlled so as to prevent glare or direct illumination of any public sidewalk or thoroughfares.

  B. On any commercial or industrial zoned property, glare from exterior lighting shall be shielded screened or oriented so as not to be seen from any point beyond the exterior of the property and so the source shall not be a nuisance to any point beyond the exterior boundaries of the property or cause illumination in residential districts in excess of 0.5 foot-candles. Flickering or intrinsically bright sources of illumination shall be controlled so as not to be a nuisance in residential districts.

### AIR QUALITY

### Existing Regulation

- The City shall obtain Rule 403 approval from the SCAQMD for minor grading activities.

### Existing Regulation

- The City shall comply with the provisions of the City’s Standard Plans and Specifications for public works construction related to minimizing air quality impacts during construction.

<table>
<thead>
<tr>
<th>Time Frame for Implementation</th>
<th>Responsible Monitoring Agency</th>
</tr>
</thead>
<tbody>
<tr>
<td>During construction and operation</td>
<td>City Project Manager, City Construction Inspector</td>
</tr>
<tr>
<td>Prior to construction.</td>
<td>City Project Manager</td>
</tr>
<tr>
<td>During construction.</td>
<td>City Project Manager; City Construction Inspector</td>
</tr>
<tr>
<td>Mitigation Measure No.</td>
<td>Mitigation Measure or Existing Regulation</td>
</tr>
<tr>
<td>-----------------------</td>
<td>------------------------------------------</td>
</tr>
<tr>
<td>AQ-1</td>
<td>During construction, the Construction Contractor shall comply with SCAQMD Rule 402 requiring the implementation of dust suppression techniques to prevent fugitive dust from creating a nuisance off-site. Implementation of the following measures would reduce short-term fugitive dust impacts on nearby sensitive receptors:</td>
</tr>
<tr>
<td></td>
<td>■ All active portions of the construction site shall be watered every three hours during daily construction activities and when dust is observed migrating from the project site to prevent excessive amounts of dust;</td>
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<tr>
<td></td>
<td>■ 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;</td>
</tr>
<tr>
<td></td>
<td>■ 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;</td>
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<tr>
<td></td>
<td>■ All grading and excavation operations shall be suspended when wind speeds exceed 25 miles per hour;</td>
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<tr>
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<td>■ Disturbed areas shall be replaced with ground cover or paved immediately after construction is completed in the affected area;</td>
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<tr>
<td></td>
<td>■ On-site vehicle speed shall be limited to 15 miles per hour;</td>
</tr>
</tbody>
</table>
## TUSTIN STREET/KATELLA AVENUE RIGHT TURN LANE AND BUS TURNOUT PROJECT
### MITIGATED NEGATIVE DECLARATION NO. ENV 1851-16

<table>
<thead>
<tr>
<th>Mitigation Measure No.</th>
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<th>Responsible Monitoring Agency</th>
<th>Verification of Compliance</th>
</tr>
</thead>
<tbody>
<tr>
<td>■</td>
<td>Visible dust beyond the project limits which emanates from the project shall be prevented to the maximum extent feasible;</td>
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<tr>
<td>■</td>
<td>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</td>
<td></td>
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<tr>
<td>■</td>
<td>Reroute construction trucks away from congested streets or sensitive receptor areas.</td>
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</tbody>
</table>

### BIOLOGICAL RESOURCES

**Existing Regulation**

Orange Municipal Code Chapter 12.32 Tree Preservation establishes permit requirements for removing a tree on undeveloped property, public interest property, or historic trees.

### CULTURAL RESOURCES

**Existing Regulation**

The City of Orange Public Works Department’s Standard Contract Specifications require compliance with California Public Resources Code Section 5097.5:

(a) No person shall knowingly and willfully excavate upon, or remove, destroy, injure, or deface any historic or prehistoric ruins, burial grounds, archeological or vertebrate paleontological site, including fossilized footprints, inscriptions made by human agency, rock art or other archaeological paleontological or historic features situated on public lands ...

During construction. City Project Manager; City Construction Inspector

The City of Orange Public Works Department's Standard Contract Specifications require compliance with California Public Resources Code Section 7050.5 and Section 5097.98:

During construction. City Project Manager; City Construction Inspector
<table>
<thead>
<tr>
<th>Mitigation Measure No.</th>
<th>Mitigation Measure or Existing Regulation</th>
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<th>Verification of Compliance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Section 7050.5 (b)</td>
<td>In the event of discovery of human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the coroner of the county in which the human remains are located are discovered has determined… that the remains are not subject to the provisions of Section 27491 of the Government Code or any other law concerning investigation of the circumstances, manner, and cause of any death, and the recommendations concerning the treatment and disposition of the human remains have been made to the person responsible for the excavation, or to his or her representative, in the manner provided in Section 5097.98 of the Public Resources Code. …</td>
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<tr>
<td>Section 5097.98 (a)</td>
<td>Whenever the commission receives notification of a discovery of Native American human remains from a county coroner pursuant to subdivision (c) of Section 7050.5 of the Health and Safety Code, it shall immediately notify those persons it believes to be most likely descended from the deceased Native American. The descendants may, with the permission of the owner of the land, or his or her authorized representative, inspect the site of the discovery of the Native American human remains and may recommend to the owner or the person responsible for the excavation work means for treatment or disposition, with appropriate dignity, of the human remains and any associated grave goods. The descendants shall complete their inspection and make recommendations or preferences for treatment within 48 hours of being granted access to the site.</td>
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</table>

Initial Study/Mitigated Negative Declaration
### Mitigation Measure No.

<table>
<thead>
<tr>
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<th>Verification of Compliance</th>
</tr>
</thead>
<tbody>
<tr>
<td>(b) Upon the discovery of Native American remains, the landowner shall ensure that the immediate vicinity, according to generally accepted cultural or archaeological standards or practices, where the Native American human remains are located, is not damaged or disturbed by further development activity until the landowner has discussed and conferred, as prescribed in this section, with the most likely descendants regarding their recommendations, if applicable, taking into account the possibility of multiple human remains. The landowner shall discuss and confer with the descendants all reasonable options regarding the descendants' preferences for treatment.</td>
<td>During construction.</td>
<td>City Project Manager; City Construction Inspector</td>
<td></td>
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</tbody>
</table>

### GEOLOGY AND SOILS

<table>
<thead>
<tr>
<th>Existing Regulation</th>
<th>Mitigation Measure or Existing Regulation</th>
<th>Time Frame for Implementation</th>
<th>Responsible Monitoring Agency</th>
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<tbody>
<tr>
<td>Construction activities must conform to standard erosion control measures outlined in the Standard Specifications for Public Works Construction as part of the City's standard construction contract provisions. These standards require that the contractor exercise every reasonable precaution to protect channels, storm drains, and bodies of water from pollution, and conduct operations so as to minimize or avoid muddying and silting of channels, drains, and waters. Standard construction contract specifications also require the development and implementation of a SWPPP. Per existing regulations, the City requires the contractor to submit a SWPPP to the City for review and approval prior to commencement of construction. The SWPPP must identify Best Management Practices (BMPs) to control erosion and pollutant transport. Applicable BMPs include the following measures (or the equivalent):</td>
<td>During construction.</td>
<td>City Project Manager; City Construction Inspector</td>
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</tbody>
</table>
### Mitigation Measures

<table>
<thead>
<tr>
<th>Mitigation Measure No.</th>
<th>Mitigation Measure or Existing Regulation</th>
<th>Time Frame for Implementation</th>
<th>Responsible Monitoring Agency</th>
<th>Verification of Compliance</th>
</tr>
</thead>
<tbody>
<tr>
<td>■</td>
<td>Sediment from areas disturbed during construction must be retained on-site using structural controls (such as storm drain inlet protection, plastic sheeting, sandbags, check berms or desilting basins) to prevent erosion to storm drains, channels, or other bodies of water.</td>
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<td>■</td>
<td>Stockpiles of soil or other materials must be properly contained and covered to avoid sediment transport from the construction site via runoff, vehicle tracking, or wind.</td>
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<tr>
<td>■</td>
<td>Runoff from equipment and vehicle washing must be contained at the construction site and not be discharged to the storm drain system.</td>
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### HAZARDS AND HAZARDOUS MATERIALS

**HAZ-1**

The City and/or its contractor shall comply with the following:

- Prior to the start of construction, the City shall retain a Phase II/Site Characterization Specialist to sample the project site to determine whether existing and/or past uses have contaminated the soil that underlies the project site. Results of sampling shall indicate the level of remediation efforts required, if necessary. At a minimum, if contaminated soil is present, the City’s Project Manager shall notify the Orange County Health Care Agency (OCHCA) and Orange Fire Department (OFD) and the material shall be contained, removed, and disposed of at a permitted landfill facility by a qualified remediation contractor in accordance with existing regulations (including the Orange County Health Care Agency requirements prior to soil disturbance and demolition, and during construction).
governing soil remediation). Additionally, if contaminated soil is present, the construction contractor shall manage soils as hazardous waste, including removing, covering, and transporting to an approved disposal facility, in conformance with OCHCA and OFD requirements. These requirements shall be included in the construction contract and enforced by the City's Project Manager and construction inspector.

- Prior to commencement of construction, the City shall coordinate with Southern California Edison (SCE) to determine whether removal/relocation of pad- and pole-mounted transformers is necessary for the project. If determined necessary, the City’s Project Manager and the contractor shall coordinate with SCE to ensure that work is done consistent with handling procedures for PCBs for the transformers. This requirement shall be included in the construction contract and enforced by the City's Project Manager and construction inspector.

- During construction, the contractor shall ensure that any ground asphalt containing yellow paint or thermoplastic traffic stripes is recycled at a facility for reuse in asphalt products in accordance with the OMC Construction Waste Ordinance. This requirement shall be included in the construction contract and enforced by the City's Project Manager and construction inspector.

- During construction, if striping is removed and disposed of, prior to disposal the contractor shall test representative samples of striping paint. If lead is found, the material shall be disposed of to an
### Tustin Street/Katella Avenue Right Turn Lane and Bus Turnout Project

**Mitigation Measure or Existing Regulation**

<table>
<thead>
<tr>
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<tbody>
<tr>
<td></td>
<td>appropriate, permitted disposal facility that accepts lead-impacted construction waste. Prior to soil disturbance, a qualified contractor shall test soil adjacent to the roadway for lead and other heavy metals in accordance with existing regulations. If lead is found in the soil, the removed soil shall be contained, covered, and disposed of at a permitted facility. This requirement shall be included in the construction contract and enforced by the City's Project Manager and construction inspector.</td>
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<td>During construction, if unknown wastes or suspect materials are discovered during by the contractor, which he/she believes may involve hazardous waste/materials, the contractor shall be required to complete the following:</td>
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<td>- Immediately stop work in the vicinity of the suspected contaminant, removing workers and the public from the area;</td>
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<td>- Notify the City's Project Manager;</td>
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<td>- Secure the areas as directed by the City's Project Manager; and</td>
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<td>- Notify the Orange Fire Department and OCHCA Hazardous Waste/Materials Coordinator.</td>
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</table>

### Hydrology and Water Quality

<table>
<thead>
<tr>
<th>Existing Regulation</th>
<th>City of Orange Grading Plan Requirements</th>
<th>Prior to commencement of construction</th>
<th>City Project Manager; City Construction Inspector</th>
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<tbody>
<tr>
<td></td>
<td>Prior to issuance of grading permits, the City requires standard Erosion Control, Sediment Control, and Water Quality notes to be included on every grading plan including:</td>
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Initial Study/Mitigated Negative Declaration 99
<table>
<thead>
<tr>
<th>Mitigation Measure No.</th>
<th>Mitigation Measure or Existing Regulation</th>
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<tr>
<td>■ Sediment from areas disturbed by construction shall be retained on site using structural controls to the Maximum Extent Practicable.</td>
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<td>■ Stockpiles of soil shall be properly contained to minimize sediment transport from the site to streets, drainage facilities or adjacent properties via runoff, vehicle tracking, or wind.</td>
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<td>■ Appropriate BMPs for construction-related materials, wastes, spills, or residues shall be implemented to minimize transport from the site to streets, drainage facilities, or adjoining property by wind or runoff.</td>
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<td>■ Runoff from equipment and vehicle washing shall be contained at construction sites unless treated to remove sediment and other pollutants.</td>
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<tr>
<td>Existing Regulation</td>
<td>City of Orange – Standard Plans and Specifications</td>
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<td>All improvements within the public rights-of-way and easements within the City of Orange shall conform to the Standard Plans and Specifications. The following measure will be required by the City of Orange and is applicable to the proposed project: 7-8.1 – Cleanup and Dust Control Unless otherwise authorized by the Engineer, all surplus materials shall be removed from the site of the work immediately after completion of the work causing the surplus materials. Unless the construction dictates otherwise, and unless otherwise approved by the Engineer, the Contractor shall furnish and operate a self-loading motor sweeper with spray nozzles at least once each working day to keep paved areas acceptably clean.</td>
<td>During construction</td>
<td>City Project Manager; City Construction Inspector</td>
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<td>whenever construction, including restoration, is incomplete.</td>
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<td>Failure of the Contractor to comply with the Engineer's dust control orders may result in an order to suspend work until the condition is corrected; after filing notice to the Contractor, the Engineer may order this accomplished by others.</td>
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<td>7-8.6 – Water Pollution Control</td>
<td>Full size, Erosion and Sediment Control Plans shall be prepared by the Contractor as part of the SWPPP that identify adequate controls to prevent erosion and discharge of sediment off-site.</td>
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<td>7-8.7 – Drainage Control</td>
<td>It is anticipated that storm, surface, or other waters will be encountered at various times and locations during the work herein contemplated. The Contractor will be required to control all water encountered during construction and shall use appropriate methods of sediment control and debris barriers to prevent any contaminated water from entering the storm drain piping. These methods shall include the placement of sand bags, filter fabric and fencing, berms, and other temporary barriers as needed to comply with the City's requirements for construction activities.</td>
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6.0 COMMENTS AND RESPONSES (IN FINAL DOCUMENT)
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