FINAL

INITIAL STUDY/
MITIGATED NEGATIVE DECLARATION

MISSION FOOTHILLS RESIDENTIAL PROJECT
MISSION VIEJO, CALIFORNIA

LSA
May 2019
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INITIAL STUDY/
MITIGATED NEGATIVE DECLARATION

MISSION FOOTHILLS RESIDENTIAL PROJECT
MISSION VIEJO, CALIFORNIA

Submitted to:
City of Mission Viejo
200 Civic Center
Mission Viejo, California 92691

Prepared by:
LSA
20 Executive Park, Suite 200
Irvine, California 92614
(949) 553-0666

Project No. SHO1704.03

May 2019
TABLE OF CONTENTS

SECTION 1: INTRODUCTION AND RESPONSES TO COMMENTS

SECTION 2: MITIGATION MONITORING AND REPORTING PROGRAM

SECTION 3: DRAFT INITIAL STUDY/MITIGATED NEGATIVE DECLARATION (CIRCULATED FROM APRIL 18, 2019 TO MAY 8, 2019)
SECTION 1

INTRODUCTION AND RESPONSES TO COMMENTS
INTRODUCTION

This section comprises the Comments and Responses of the Final Initial Study/Mitigated Negative Declaration (IS/MND) for the proposed Mission Foothills Residential Project (project) in Mission Viejo, California. The purpose of this document is to respond to all comments received by the City of Mission Viejo (City) regarding the environmental information and analyses contained in the Draft IS/MND.

As required by the State California Environmental Quality Act (CEQA) Guidelines, Section 15073, a Notice of Intent (NOI) to adopt a Mitigated Negative Declaration (MND) was sent to various public agencies and interested individuals concerned with the project. In addition, the NOI was filed with the Orange County Clerk on April 17, 2019.

The Draft IS/MND was circulated for public review for a period of 21 days, from April 18, 2019 through May 8, 2019. Copies of the Draft IS/MND were made available for public review at the City Community Development Department, the Mission Viejo Library, and on the Internet (https://cityofmissionviejo.org/departments/community-development/planning).

Comments were accepted for a period of 21 days in order to ensure adequate time for residents and agencies to comment on the Draft IS/MND. The City, as the Lead Agency, is required to consider agency and public comments on a CEQA document as part of the decision process to approve a project. Although preparation of responses to comments received on an IS/MND is not required by CEQA, responses have been prepared.

No changes have been made to the information contained in the Draft IS/MND as a result of the responses to comments; therefore, no new information has been added that would require recirculation of the document.

Together, the responses to comments, the Draft IS/MND, and the Mitigation Monitoring and Reporting Program (MMRP) are collectively referred to as the Final IS/MND. The Final IS/MND will be submitted to the City Planning and Transportation Commission for public hearing on May 13, 2019. Upon approval by the City Planning and Transportation Commission, the Final IS/MND will be submitted to City Council, which will have the final decision on whether to adopt the Final IS/MND and approve the proposed project.

COMMENTS RECEIVED

The following is a list of the written comments received on the Draft IS/MND prior to the close of the public comment period or immediately thereafter. Each comment letter received is indexed with a number below. Responses to each of the comment letters are provided on the following pages. The comment index numbers are provided in the upper right corner of each comment letter, and individual points within each letter are numbered along the right-hand margin of each letter. The City’s responses immediately follow each letter and are referenced by index numbers in the margins.
<table>
<thead>
<tr>
<th>Comment Code</th>
<th>Commenter</th>
<th>Date Received</th>
</tr>
</thead>
<tbody>
<tr>
<td>L-1</td>
<td>Orange County Fire Authority (OCFA)</td>
<td>May 6, 2019</td>
</tr>
<tr>
<td>L-2</td>
<td>Saddleback Valley Unified School District (SVUSD)</td>
<td>May 6, 2019</td>
</tr>
<tr>
<td>L-3</td>
<td>Orange County Public Works (OCPW)</td>
<td>May 7, 2019</td>
</tr>
</tbody>
</table>
RESPONSE TO COMMENTS
May 6, 2019

City of Mission Viejo
Planning & Economic Development
Attn: Larry Longenecker, AICP
200 Civic Center Plaza
Mission Viejo, CA 92691

Ref: Notice of Intent (NOI) to Adopt a Mitigated Negative Declaration (MND) for the Mission Foothills Residential Project

Dear Larry Longenecker:

Thank you for the opportunity to review the subject document. The Orange County Fire Authority (OCFA) provides fire protection and emergency medical services response to the project area. Services include: structural fire protection, emergency medical and rescue services, education and hazardous material response. OCFA also participates in disaster planning as it relates to emergency operations, which includes high occupant areas and schools sites and may participate in community disaster drills planned by others. Resources are deployed based upon a regional service delivery system, assigning personnel and equipment to emergency incidents without regard to jurisdictional boundaries. The equipment used by the department has the versatility to respond to both urban and wildland emergency conditions. The following are our comments:

We believe this project will have Less Than Significant Impact with the following requirements:

- Prior to approval of any subdivision or comprehensive plan approval for a project, the designated site developer may be required to enter into a Secured Fire Protection Agreement with the Orange County Fire Authority.
  - This Agreement shall specify the developer’s pro-rata fair share funding of capital improvements necessary to establish adequate fire protection facilities and equipment, and/or personnel. Said agreement shall be reached as early as possible in the planning process, preferably for each phase or land use sector of the project, rather than on a parcel by parcel basis.

- The project is subject to review by the City and the OCFA for various construction document plan checks for the applicable fire life safety codes and regulations. The project will be subject to the current editions of the CBC, CFC and related codes.

- Structures of this size and occupancy are required to have automatic fire sprinkler systems designed per NFPA 13 as required in the current CBC, CFC.

- A water supply system to supply fire hydrants and automatic fire sprinkler systems is required. Fire flow and hydrant spacing shall meet the minimums identified in the codes. Please refer to...
the California Fire Code Appendix section. These tables are also located in OCFA Guideline B09, Attachment 23.

- Fire department access shall be provided all around the building
- If the project scope includes or requires the installation of traffic signals on public access ways, these improvements shall include the installation of optical preemption devices.
- Attic spaces shall be fully sprinklered.
- It is unlawful to occupy any portions of this apartment building until City building department and OCFA have conducted final inspection and sign off

In addition, we would like to point out that all standard conditions with regard to development, including water supply, built in fire protection systems, road grades and width, access, building materials, and the like will be applied to this project at the time of plan submittal. Thank you for providing us with this information. Please contact me at 714-573-6199 if you have any questions.

Sincerely,

Tamera Rivers
Management Analyst
Strategic Services Section
tamyrivers@ocfa.org
714-573-6199
LOCAL AGENCY: Orange County Fire Authority (OCFA)

LETTER CODE: L-1

COMMENTER: Tamera Rivers, Management Analyst, Strategic Services Section

DATE RECEIVED: May 6, 2019

RESPONSE L-1-1

The comment thanks the City of Mission Viejo (City) for the opportunity to comment on the Mission Foothills Residential Project (project). The comment provides background information on OCFA, including a description of services provided.

The comment provides introductory statements and background information on OCFA. This comment does not contain any substantive comments or questions about the Draft Initial Study/Mitigated Negative Declaration (IS/MND) or analysis therein. This comment will be forwarded to the decision-makers for their review and consideration. No further response is necessary.

RESPONSE L-1-2

The comment states that the project would have a less than significant impact on fire protection services with incorporation of the following:

- Prior to approval of any subdivision or comprehensive plan for the project, the project Applicant may be required to enter into a Secured Fire Protection Agreement with OCFA;
- The project would be subject to final plan review by the City and OCFA. The project would be subject to the California Building Code (CBC) and the California Fire Code (CFC);
- The project would be required to install an automatic sprinkler system;
- The project would be required to install a water supply system to supply fire hydrants and automatic sprinkler systems. Fire flow and hydrant spacing would be required to meet minimum requirements as identified in the CBC and CFC;
- The project would be required to provide OCFA access around buildings;
- Project occupancy would not be permitted until the City and OCFA have conducted any final building inspections; and
- Standard conditions related to development, including water supply standards, built-in fire protection systems, road grades and width, access, and building materials, would be applied to the project at the time of plan submittal.

The project would incorporate the above conditions provided by OCFA as standard conditions of project approval. In addition, the City’s resolution for approval of the proposed project includes a condition requiring OCFA approval of project plans. As indicated by the comment, incorporation of
these OCFA conditions would result in less than significant impacts with regard to fire protection services. This comment will be forwarded to the decision-makers for their review and consideration. No further response is necessary.

**RESPONSE L-1-3**

The comment letter concludes by thanking the City for the opportunity to comment on the project and provides contact information.

The comment does not contain any substantive comments or questions about the environmental analysis or conclusions contained in the Draft IS/MND. No further response is required.
Larry Longenecker, AICP  
City of Mission Viejo  
200 Civic Center  
Mission Viejo, CA 92691  

Via Email: llongenecker@cityofmissionviejo.org  

Subject: Response to Notice of Intent to Adopt a Mitigated Negative Declaration for the Mission Foothills Residential Project  

Dear Mr. Longenecker:  

Thank you for the opportunity to comment on the Mission Foothills Residential MND. The site is at 28731-28841 Los Alisos Boulevard, Mission Viejo, CA 9269 (just south of State Route 241). The project would demolish the largest building (99,500 sf) in the Mission Foothill shopping center and construct a 192,116 sf residential building with 105 residential units. It also includes a General Plan Amendment from Commercial Highway to Residential 30 and a change in zone from CH (Commercial Highway) and RPD 30A to RPD 30 (Residential Planned Development) to allow for the development.  

As acknowledged in the Mitigated Negative Declaration, the project is located within the Saddleback Valley Unified School District and would generate about 44 students that would attend district schools. As stated on 4-98 of the Initial Study the residential project would be served by the following schools.  

- Elementary School: - Melinda Heights Elementary School (grades K - 6)  
  - 21001 Rancho Trabuco, Rancho Santa Margarita, CA 92688  
  - 0.8 mile from the development site (north of SR 241)  
  - 23 students  

- Middle School: - Rancho Santa Margarita Intermediate School (grades 7 - 8)  
  - 21931 Alma Aldea, Rancho Santa Margarita, CA 92688  
  - 2.4 miles from the development site (south of SR 241)  
  - 7 students  

- High School: - Trabuco Hills High School (grades 9 - 12)  
  - 27501 Mustang Run, Mission Viejo, CA 92691  
  - 1.1 miles from the development site (south of SR 241)  
  - 14 students  

The MND acknowledged on page 4-100 that new residential units will be required to pay the school facility developer fee in place at the time building permits are issued.  

Although the MND discussed the enrollment and capacity at District schools as a whole, there was no discussion or impact analysis for the three schools that would serve the students from the new development. We understand that this will not change the less than significant finding.
The Saddleback Valley USD has no other comments on the Daft Mitigated Negative Declaration, but requests that the City continue to notify the District of all actions on this project and give the District an opportunity to review future environmental documentation.

Our mission is to provide all students with a high-quality education in a safe and nurturing environment so they can reach their full potential and to become contributing and compassionate citizens in the world community. It is critical that the District remain involved in the planning process. We look forward to working cooperatively with the City to create the best environment for our students and staff and the larger community. Please contact the undersigned if you have any questions or require additional information.

Sincerely,

Stella Escario-Doiron
Chief of Facilities, Maintenance, Operations, Construction & Transportation

c: file, Connie Cavanaugh, Assistant Superintendent of Business Services
LOCAL AGENCY: Saddleback Valley Unified School District (SVUSD)

LETTER CODE: L-2

COMMENTER: Stella Escario-Doiron, Chief of Facilities, Maintenance, Operations, Construction, and Transportation

DATE RECEIVED: May 6, 2019

RESPONSE L-2-1

The comment thanks the City of Mission Viejo (City) for the opportunity to comment on the Mission Foothills Residential Project (project). The comment states information from the project description, including the project’s location, the proposed demolition area, the proposed building area, and that the project would require a General Plan Amendment and zone change.

The comment provides introductory statements and correctly states information from the project description. This comment does not contain any substantive comments or questions about the Draft Initial Study/Mitigated Negative Declaration (IS/MND) or analysis therein. This comment will be forwarded to the decision-makers for their review and consideration. No further response is necessary.

RESPONSE L-2-2

The comment indicates that the Draft IS/MND correctly states that the project site is located within the Saddleback Valley Unified School District (SVUSD) and would generate approximately 44 students. In addition, the comment confirms that the project would be served by Melinda Heights Elementary School (Kindergarten through 6th grade), Rancho Santa Margarita Intermediate School (7th through 8th grade), and Trabuco Hills High School (9th through 12th grade). The comment also acknowledges that the project Applicant would be required to pay school developer fees at the time building permits are issued, as stated in the Draft IS/MND.

The comment reiterates information that is stated in the Draft IS/MND. This comment does not contain any substantive comments or questions about the Draft IS/MND or analysis therein. This comment will be forwarded to the decision-makers for their review and consideration. No further response is necessary.

RESPONSE L-2-3

The comment states that, although the IS/MND discusses SVUSD enrollment and capacity overall, the IS/MND does not discuss enrollment and capacity of the individual schools that would serve the students generated by the project. The comment states that this information would not change the significance findings in the IS/MND, and impacts would remain less than significant.

Although the comment refers to analysis contained in the Draft IS/MND, the comment confirms that the analysis related to schools is valid. This comment will be forwarded to the decision-makers for their review and consideration. No further response is necessary.
RESPONSE L-2-4

The comment states that SVUSD has no other comments on the Draft IS/MND. The comment requests that the City notify SVUSD of all actions on the project and provide SVUSD with the opportunity to comment on future environmental documentation for projects within Mission Viejo. The comment letter concludes with SVUSD’s mission statement and provides contact information.

The comment is conclusory in nature. The City will provide SVUSD with a copy of this Final IS/MND at least 10 days prior to adoption of the document and approval of the project. The comment does not contain any substantive comments or questions about the environmental analysis or conclusions contained in the Draft IS/MND. No further response is required.
May 7, 2019

Larry Longenecker, AICP
Planning & Economic Development Manager
City of Mission Viejo
200 Civic Center
Mission Viejo, CA 92691

Subject: Intent to Adopt a Mitigated Negative Declaration for the Mission Foothills Residential Project

Dear Mr. Larry Longenecker:

The County of Orange has reviewed the Initial Study and the Mitigated Negative Declaration for the Mission Foothills Residential Project and has no comments at this time. We would like to be advised of further developments on the project. Please continue to keep us on the distribution list for future notifications related to the project.

If you have any questions regarding these comments, please contact Cindy Salazar at (714) 667-8870 in OC Development Services.

Sincerely,

Richard Vuong, Manager, Planning Division
OC Public Works Service Area/OC Development Services
300 North Flower Street
Santa Ana, California 92702-4048
Richard.Vuong@ocpw.ocgov.com
LOCAL AGENCY: Orange County Public Works (OCPW)

LETTER CODE: L-3

COMMENTER: Richard Vuong, Manager, Planning Division

DATE RECEIVED: May 7, 2019

RESPONSE L-3-1

The comment states that OCPW has no comments on the Draft Initial Study/Mitigated Negative Declaration (IS/MND) for the Mission Foothills Residential Project (project). The comment requests that the City of Mission Viejo (City) notify OCPW of any future actions on the project. The comment letter concludes by providing contact information.

This comment does not contain any substantive comments or questions about the Draft IS/MND or analysis therein. This comment will be forwarded to the decision-makers for their review and consideration. No further response is necessary.
SECTION 2

MITIGATION MONITORING AND REPORTING PROGRAM
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MITIGATION MONITORING AND REPORTING PROGRAM

MITIGATION MONITORING REQUIREMENTS

Public Resources Code (PRC) Section 21081.6 (enacted by the passage of Assembly Bill [AB] 3180) mandates that the following requirements shall apply to all reporting or mitigation monitoring programs:

• The public agency shall adopt a reporting or monitoring program for the changes made to the project or conditions of project approval in order to mitigate or avoid significant effects on the environment. The reporting or monitoring program shall be designed to ensure compliance during project implementation. For those changes which have been required or incorporated into the project at the request of a Responsible Agency or a public agency having jurisdiction by law over natural resources affected by the project, that agency shall, if so requested by the Lead Agency or a Responsible Agency, prepare and submit a proposed reporting or monitoring program.

• The Lead Agency shall specify the location and custodian of the documents or other material which constitute the record of proceedings upon which its decision is based.

• A public agency shall provide the measures to mitigate or avoid significant effects on the environment that are fully enforceable through permit conditions, agreements, or other measures. Conditions of project approval may be set forth in referenced documents which address required mitigation measures or in the case of the adoption of a plan, policy, regulation, or other project, by incorporating the mitigation measures into the plan, policy, regulation, or project design.

• Prior to the close of the public review period for a draft Environmental Impact Report (EIR) or Mitigated Negative Declaration (MND), a Responsible Agency, or a public agency having jurisdiction over natural resources affected by the project, shall either submit to the Lead Agency complete and detailed performance objectives for mitigation measures which would address the significant effects on the environment identified by the Responsible Agency or agency having jurisdiction over natural resources affected by the project, or refer the Lead Agency to appropriate, readily available guidelines or reference documents. Any mitigation measures submitted to a Lead Agency by a Responsible Agency or an agency having jurisdiction over natural resources affected by the project shall be limited to measures which mitigate impacts to resources that are subject to the statutory authority of, and definitions applicable to, that agency. Compliance or noncompliance by a Responsible Agency or agency having jurisdiction over natural resources affected by a project with that requirement shall not limit that authority of the Responsible Agency or agency having jurisdiction over natural resources affected by a project, or the authority of the Lead Agency, to approve, condition, or deny projects as provided by this division or any other provision of law.
MITIGATION MONITORING PROCEDURES

The mitigation monitoring and reporting program has been prepared in compliance with PRC Section 21081.6. The program describes the requirements and procedures to be followed by the City of Mission Viejo to ensure that all mitigation measures adopted as part of the proposed project would be carried out as described in the Initial Study/Mitigated Negative Declaration (IS/MND) prepared for the project. Table A lists each of the mitigation measures specified in the IS/MND and identifies the party or parties responsible for implementation and monitoring of each measure.
### Table A: Mitigation and Monitoring Reporting Program

<table>
<thead>
<tr>
<th>Mitigation Measures and Compliance Measures</th>
<th>Responsible Party</th>
<th>Timing for PDF or Mitigation Measure</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.1 Aesthetics</td>
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<tr>
<td>The proposed project would not result in significant adverse impacts related to aesthetics. No mitigation is required.</td>
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<tr>
<td>4.2 Agricultural Resources</td>
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<tr>
<td>The proposed project would not result in significant adverse impacts related to agricultural resources. No mitigation would be required.</td>
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<tr>
<td>4.3 Air Quality</td>
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<tr>
<td>The proposed project would not result in significant adverse impacts related to air quality. No mitigation would be required.</td>
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<tr>
<td>4.4 Biological Resources</td>
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<tr>
<td>The proposed project would not result in significant adverse impacts related to biological resources. No mitigation would be required.</td>
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<tr>
<td>4.5 Cultural Resources</td>
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<tr>
<td>The proposed project would not result in significant adverse impacts related to cultural resources. No mitigation would be required.</td>
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<td>4.6 Energy</td>
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<td>The proposed project would not result in significant adverse impacts related to energy. No mitigation would be required.</td>
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<td>4.7 Geology and Soils</td>
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<tr>
<td>Mitigation Measure GEO-1 is required to reduce potential project-related impacts related to geology and soils to a less than significant level.</td>
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</tbody>
</table>

**Mitigation Measure GEO-1:** Preparation of and Compliance with the Recommendations in the Final Geotechnical Report. Prior to issuance of grading permits, the Project Applicant shall submit a Final Geotechnical Investigation prepared for the project site to the Director of the Mission Viejo Community Development Department, or designee, for review and approval. All grading operations and construction shall be conducted in conformance with the recommendations included in the Final Geotechnical Report. Grading plan review shall be conducted by the Director of the Mission Viejo Community Development Department, or designee, prior to the start of grading to verify that requirements specified in the Final Geotechnical Report have been appropriately incorporated into final project design. Design, grading, and construction shall be performed in accordance with the requirements of the City of Mission Viejo Building Code and the California Building Code (CBC) applicable at the time of grading, appropriate local grading regulations, and the recommendations of the geotechnical consultant as summarized in the Final Geotechnical Investigation for the project.

<table>
<thead>
<tr>
<th>Project Applicant/ Director of the Mission Viejo Community Development Department, or designee</th>
<th>Prior to the issuance of grading permits/Prior to the start of grading</th>
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</thead>
</table>

4.8 Greenhouse Gas Emissions

The proposed project would not result in significant adverse impacts related to greenhouse gas emissions. No mitigation would be required.
Table A: Mitigation and Monitoring Reporting Program

<table>
<thead>
<tr>
<th>Mitigation Measures and Compliance Measures</th>
<th>Responsible Party</th>
<th>Timing for PDF or Mitigation Measure</th>
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</thead>
<tbody>
<tr>
<td>4.9 Hazards and Hazardous Materials</td>
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<tr>
<td>The proposed project would not result in significant adverse impacts related to hazards and hazardous materials. No mitigation would be required.</td>
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<td>4.10 Hydrology and Water Quality</td>
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<tr>
<td>The proposed project would not result in significant adverse impacts related to hydrology and water quality. No mitigation would be required.</td>
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<tr>
<td>4.11 Land Use and Planning</td>
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<tr>
<td>The proposed project would not result in significant adverse impacts related to land use and planning. No mitigation would be required.</td>
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<tr>
<td>4.12 Mineral Resources</td>
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<tr>
<td>The proposed project would not result in significant adverse impacts related to mineral resources. No mitigation would be required.</td>
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<tr>
<td>4.13 Noise</td>
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<tr>
<td>Mitigation Measures NOI-1 through NOI-3 are required to reduce potential project-related impacts related to noise to a less than significant level.</td>
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</table>

Mitigation Measure NOI-1: **Construction Noise.** Prior to issuance of demolition permits, the General Manager of the City of Mission Viejo (City) Department of Building and Safety, or designee, shall verify that all construction plans include notes stipulating the following:

- Prohibit all noise-producing construction activities between the hours of 8:00 p.m. and 7:00 a.m. on weekdays and Saturdays. Construction shall not be allowed at any time on Sundays or federal holidays.
- Grading and construction contractors shall use equipment that generates lower vibration levels, such as rubber-tired equipment rather than metal-tracked equipment when feasible.
- Construction haul truck and materials delivery traffic shall avoid residential areas whenever feasible.
- The construction contractor shall place noise- and vibration-generating construction equipment and locate construction staging areas away from sensitive uses whenever feasible.
- The construction contractor shall use on-site electrical sources to power equipment rather than diesel generators where feasible.
- All residential units within 500 feet (ft) of the construction site shall be sent a notice regarding the construction schedule. A sign legible at a distance of 50 ft shall also be posted at the construction site. All notices and the signs shall indicate the dates and durations of construction activities, as well as provide a telephone number for the “noise disturbance coordinator.”

General Manager of the City of Mission Viejo Department of Building and Safety, or designee

Prior to issuance of demolition permits
Table A: Mitigation and Monitoring Reporting Program

<table>
<thead>
<tr>
<th>Mitigation Measures and Compliance Measures</th>
<th>Responsible Party</th>
<th>Timing for PDF or Mitigation Measure</th>
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</thead>
<tbody>
<tr>
<td>• A “noise disturbance coordinator” shall be established. The disturbance coordinator shall be responsible for responding to any local complaints about construction noise. The disturbance coordinator shall determine the cause of the noise complaint (e.g., starting too early, bad muffler) and shall be required to implement reasonable measures to reduce noise levels.</td>
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<td>Prior to issuance of any certificates of occupancy</td>
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<tr>
<td>Mitigation Measure NOI-2: Final Acoustical Report. Prior to the issuance of any certificates of occupancy, the Project Applicant/Developer shall submit a Final Acoustical Report, prepared by a qualified acoustical consultant, to the City. The Mission Viejo Department of Building and Safety, or designee, shall verify that the Final Acoustical Report demonstrates that all units with exterior façades, including all bedrooms and living rooms, comply with the City’s interior noise standard (45 dBA Community Noise Equivalent Level [CNEL]). Noise reduction techniques that may be incorporated into construction plans to reduce interior noise levels include, but are not limited to: incorporation of upgraded windows and doors, improved wall construction, or reduced window and door sizes.</td>
<td>Project Applicant/Mission Viejo Department of Building and Safety, or designee</td>
<td>Prior to issuance of any certificates of occupancy</td>
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<tr>
<td>Mitigation Measure NOI-3: Ventilation Requirements. Prior to the issuance of building permits, documentation shall be provided to the Mission Viejo Department of Building and Safety, or designee, demonstrating that the project buildings meet ventilation standards required by the California Building Code with windows closed. Mechanical ventilation, such as an air-conditioning system, shall be required as part of the project design for all on-site buildings/units.</td>
<td>Mission Viejo Department of Building and Safety, or designee</td>
<td>Prior to issuance of building permits</td>
</tr>
</tbody>
</table>

4.14 Population and Housing
The proposed project would not result in significant adverse impacts related to population and housing. No mitigation would be required.

4.15 Public Services
The proposed project would not result in significant adverse impacts related to public services. No mitigation would be required.

4.16 Recreation
The proposed project would not result in significant adverse impacts related to recreation. No mitigation would be required.

4.17 Transportation/Traffic
The proposed project would not result in significant adverse impacts related to transportation/traffic. No mitigation would be required.

4.18 Tribal Cultural Resources
The proposed project would not result in significant adverse impacts related to tribal cultural resources. No mitigation would be required.
Table A: Mitigation and Monitoring Reporting Program

<table>
<thead>
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</tr>
</thead>
<tbody>
<tr>
<td><strong>4.19 Utilities/Service Systems</strong></td>
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<tr>
<td>The proposed project would not result in significant adverse impacts related to utilities/service systems. No mitigation would be required.</td>
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<tr>
<td><strong>4.20 Wildfire</strong></td>
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<tr>
<td>Mitigation Measure GEO-1, presented in Section 4.7, Geology and Soils, above, would be implemented to reduce potential project-related impacts related to wildfires to a less than significant level.</td>
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</tbody>
</table>
SECTION 3

DRAFT INITIAL STUDY/MITIGATED NEGATIVE DECLARATION (CIRCULATED FROM APRIL 18, 2019 THROUGH MAY 8, 2019)
# TABLE OF CONTENTS

**TABLE OF CONTENTS**

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>LIST OF ABBREVIATIONS AND ACRONYMS</td>
<td>iv</td>
</tr>
<tr>
<td><strong>1.0 INTRODUCTION</strong></td>
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<td>1.1 Contact Person</td>
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<tr>
<td><strong>2.0 PROJECT DESCRIPTION</strong></td>
<td>2-1</td>
</tr>
<tr>
<td>2.1 Project Location and Site Description</td>
<td>2-1</td>
</tr>
<tr>
<td>2.1.1 Regional Setting</td>
<td>2-1</td>
</tr>
<tr>
<td>2.1.2 Project Vicinity and Surrounding Land Uses</td>
<td>2-1</td>
</tr>
<tr>
<td>2.1.3 Existing Project Site</td>
<td>2-1</td>
</tr>
<tr>
<td>2.1.4 Current Land Use and Zoning Designations</td>
<td>2-2</td>
</tr>
<tr>
<td>2.2 Project Characteristics</td>
<td>2-2</td>
</tr>
<tr>
<td>2.2.1 Parcel Reconfiguration</td>
<td>2-3</td>
</tr>
<tr>
<td>2.2.2 General Plan and Zoning</td>
<td>2-3</td>
</tr>
<tr>
<td>2.2.3 Building Design</td>
<td>2-4</td>
</tr>
<tr>
<td>2.2.4 Parking</td>
<td>2-4</td>
</tr>
<tr>
<td>2.2.5 Landscaping</td>
<td>2-5</td>
</tr>
<tr>
<td>2.2.6 Lighting</td>
<td>2-6</td>
</tr>
<tr>
<td>2.2.7 Sustainability Features</td>
<td>2-6</td>
</tr>
<tr>
<td>2.2.8 Earthwork and Grading</td>
<td>2-7</td>
</tr>
<tr>
<td>2.2.9 Construction Duration and Phasing</td>
<td>2-7</td>
</tr>
<tr>
<td>2.3 Discretionary Actions, Permits, and Other Approvals</td>
<td>2-7</td>
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<td><strong>3.0 ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED</strong></td>
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<td><strong>4.0 EVALUATION OF ENVIRONMENTAL IMPACTS</strong></td>
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<tr>
<td>4.1.1 Impact Analysis</td>
<td>4-3</td>
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<tr>
<td>4.2 Agricultural Resources</td>
<td>4-19</td>
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<td>4.2.1 Impact Analysis</td>
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<td>4-29</td>
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<td>4-34</td>
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<td>4.6 Energy</td>
<td>4-37</td>
</tr>
<tr>
<td>4.6.1 Impact Analysis</td>
<td>4-37</td>
</tr>
<tr>
<td>4.7 Geology and Soils</td>
<td>4-41</td>
</tr>
<tr>
<td>4.7.1 Impact Analysis</td>
<td>4-41</td>
</tr>
<tr>
<td>4.8 Greenhouse Gas Emissions</td>
<td>4-48</td>
</tr>
<tr>
<td>4.8.1 Technical Background</td>
<td>4-48</td>
</tr>
<tr>
<td>4.8.2 Impact Analysis</td>
<td>4-49</td>
</tr>
<tr>
<td>4.9 Hazards and Hazardous Materials</td>
<td>4-55</td>
</tr>
<tr>
<td>4.9.1 Impact Analysis</td>
<td>4-55</td>
</tr>
</tbody>
</table>
4.10 Hydrology and Water Quality ................................................................. 4-61
  4.10.1 Impact Analysis .............................................................................. 4-61

4.11 Land Use Planning ........................................................................... 4-71
  4.11.1 Impact Analysis: ........................................................................... 4-71

4.12 Mineral Resources ........................................................................... 4-75
  4.12.1 Impact Analysis ........................................................................... 4-75

4.13 Noise .............................................................................................. 4-77
  4.13.1 Technical Background ................................................................. 4-77
  4.13.2 Impact Analysis .......................................................................... 4-84

4.14 Population and Housing ................................................................. 4-92
  4.14.1 Impact Analysis .......................................................................... 4-92

4.15 Public Services .............................................................................. 4-95
  4.15.1 Impact Analysis .......................................................................... 4-95

4.16 Recreation ...................................................................................... 4-104
  4.16.1 Impact Analysis .......................................................................... 4-104

4.17 Transportation/Traffic ................................................................. 4-108
  4.17.1 Impact Analysis .......................................................................... 4-108

4.18 Tribal Cultural Resources ................................................................. 4-112
  4.18.1 Impact Analysis .......................................................................... 4-112

4.19 Utilities/Service Systems ............................................................... 4-115
  4.19.1 Impact Analysis .......................................................................... 4-115

4.20 Wildfire ......................................................................................... 4-124
  4.20.1 Impact Analysis .......................................................................... 4-124

4.21 Mandatory Findings of Significance .................................................. 4-128
  4.21.1 Impact Analysis .......................................................................... 4-128

5.0 REFERENCES ................................................................................. 5-1

FIGURES

Figure 2-1: Project Location .................................................................... 2-9
Figure 2-2: Project Vicinity ...................................................................... 2-11
Figure 2-3: Parcel Map .......................................................................... 2-13
Figure 2-4: General Plan Land Use Map ................................................ 2-15
Figure 2-5: Zoning Map ......................................................................... 2-17
Figure 2-6: Conceptual Site Plan ............................................................ 2-19
Figure 4.1-1: Key View Locations ........................................................... 4-11
Figure 4.1-2(a): Key View 1 .................................................................. 4-13
Figure 4.1-2(b): Key View 2 .................................................................. 4-15
Figure 4.1-2(c): Key View 3 .................................................................. 4-17

TABLES

Table 2.A: Proposed Residential Uses ...................................................... 2-3
Table 2.B: Project Parking ....................................................................... 2-5
Table 4.1.A: Zoning Development Standards Consistency Analysis .......... 4-6
Table 4.1.B: General Plan Consistency Analysis ....................................... 4-7
Table 4.3.A: SCAQMD Significance Thresholds ........................................ 4-22
LIST OF ABBREVIATIONS AND ACRONYMS

3AWRP  3A Water Reclamation Plant
AB     Assembly Bill
ac     acre(s)
ACM    asbestos-containing material
af     acre-feet
APN    Assessor's Parcel Number
AQMP   Air Quality Management Plan
Basin  South Coast Air Basin
bgs    below ground surface
BMP    Best Management Practices
CAAAQS California Ambient Air Quality Standards
CAL FIRE California Department of Forestry and Fire Protection
CalEEMod California Emission Estimator Model
California Register California Register of Historical Resources
CalRecycle California Department of Resources Recycling and Recovery
Caltrans California Department of Transportation
CARB   California Air Resources Board
CBC    California Building Code
CCR    California Code of Regulations
CDFW   California Department of Fish and Wildlife
CDMG   California Division of Mines and Geology
CEQA   California Environmental Quality Act
CH     Commercial Highway (zoning designation)
CH₄    methane
CHRIS  California Historical Resources Information System
City   City of Mission Viejo
CMP    Congestion Management Program
CNEL   Community Noise Equivalent Level
CO     carbon monoxide
CO₂    carbon dioxide
CO₂e   carbon dioxide equivalent
County County of Orange
cy     cubic yard(s)
dB     decibel(s)
dBA    A-weighted decibel(s)
<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Full Form</th>
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<tr>
<td>DOC</td>
<td>California Department of Conservation</td>
</tr>
<tr>
<td>DTSC</td>
<td>Department of Toxic Substances Control</td>
</tr>
<tr>
<td>du/ac</td>
<td>dwelling unit(s) per acre</td>
</tr>
<tr>
<td>EIR</td>
<td>Environmental Impact Report</td>
</tr>
<tr>
<td>EMS</td>
<td>Emergency Medical Services</td>
</tr>
<tr>
<td>EO</td>
<td>executive order</td>
</tr>
<tr>
<td>EPA</td>
<td>United States Environmental Protection Agency</td>
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<tr>
<td>EZRIM</td>
<td>Earthquake Zones of Required Investigation</td>
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<tr>
<td>FEMA</td>
<td>Federal Emergency Management Agency</td>
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<tr>
<td>FIRM</td>
<td>Flood Insurance Rate Map</td>
</tr>
<tr>
<td>ft</td>
<td>foot/feet</td>
</tr>
<tr>
<td>FTA</td>
<td>Federal Transit Administration</td>
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<tr>
<td>GHG</td>
<td>greenhouse gas</td>
</tr>
<tr>
<td>gpd</td>
<td>gallon(s) per day</td>
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<tr>
<td>HCP</td>
<td>Habitat Conservation Plan</td>
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<tr>
<td>HFC</td>
<td>hydrofluorocarbons</td>
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<tr>
<td>HVAC</td>
<td>heating, ventilation, and air conditioning</td>
</tr>
<tr>
<td>in/sec</td>
<td>inch/inches per second</td>
</tr>
<tr>
<td>IS</td>
<td>Initial Study</td>
</tr>
<tr>
<td>LACM</td>
<td>Natural History Museum of Los Angeles County</td>
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<tr>
<td>LBP</td>
<td>lead-based paint</td>
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<tr>
<td>lbs/day</td>
<td>pounds per day</td>
</tr>
<tr>
<td>L_{dn}</td>
<td>day-night average noise level</td>
</tr>
<tr>
<td>LED</td>
<td>light-emitting diode</td>
</tr>
<tr>
<td>L_{eq}</td>
<td>equivalent continuous sound level</td>
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<tr>
<td>LID</td>
<td>Low Impact Development</td>
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<tr>
<td>L_{max}</td>
<td>maximum instantaneous noise level</td>
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<td>LRA</td>
<td>Local Responsibility Area</td>
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<td>LST</td>
<td>localized significance thresholds</td>
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<tr>
<td>MBTA</td>
<td>Migratory Bird Treaty Act</td>
</tr>
<tr>
<td>mgd</td>
<td>million gallons per day</td>
</tr>
<tr>
<td>mi</td>
<td>mile(s)</td>
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<tr>
<td>MLD</td>
<td>Most Likely Descendent</td>
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<td>Moulton Niguel Water District</td>
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<tr>
<td>MRZ</td>
<td>Mineral Resource Zone</td>
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<tr>
<td>MS4</td>
<td>Municipal Separate Storm Sewer System</td>
</tr>
<tr>
<td>MT</td>
<td>metric ton(s)</td>
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<tr>
<td>Abbreviation</td>
<td>Full Form</td>
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<td>--------------</td>
<td>-----------</td>
</tr>
<tr>
<td>MWD</td>
<td>Metropolitan Water District of Southern California</td>
</tr>
<tr>
<td>MWELO</td>
<td>Model Water Efficient Landscape Ordinance</td>
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<tr>
<td>N₂O</td>
<td>nitrous oxide</td>
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<td>NAAQS</td>
<td>National Ambient Air Quality Standards</td>
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<tr>
<td>NAHC</td>
<td>Native American Heritage Commission</td>
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<tr>
<td>NCCP</td>
<td>Natural Communities Conservation Plan</td>
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<td>NO₂</td>
<td>nitrogen dioxide</td>
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<td>NPDES</td>
<td>National Pollution Discharge Elimination System</td>
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<td>O₃</td>
<td>ozone</td>
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<td>Orange County Fire Authority</td>
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<td>OC Public Libraries</td>
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<tr>
<td>OCSD</td>
<td>Orange County Sheriff’s Department</td>
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<tr>
<td>OCTA</td>
<td>Orange County Transportation Authority</td>
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<td>OCWRP</td>
<td>Oso Creek Water Reclamation Plant</td>
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<tr>
<td>OPR</td>
<td>California Office of Planning and Research</td>
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<tr>
<td>PCE</td>
<td>perchloroethylene</td>
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<tr>
<td>PFC</td>
<td>perfluorocarbons</td>
</tr>
<tr>
<td>Phase I ESA</td>
<td>Phase I Environmental Site Assessment</td>
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<tr>
<td>PM₂.₅</td>
<td>particulate matter less than 2.5 microns in diameter</td>
</tr>
<tr>
<td>PM₁₀</td>
<td>particulate matter less than 10 microns in diameter</td>
</tr>
<tr>
<td>POTWs</td>
<td>publicly owned treatment works</td>
</tr>
<tr>
<td>ppm</td>
<td>parts per million</td>
</tr>
<tr>
<td>PPV</td>
<td>peak-particle velocity</td>
</tr>
<tr>
<td>PRC</td>
<td>Public Resources Code</td>
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<tr>
<td>proposed project</td>
<td>Mission Foothills Residential Project</td>
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<tr>
<td>PWQMP</td>
<td>Preliminary Water Quality Management Plan</td>
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<tr>
<td>RECs</td>
<td>Recognized Environmental Concerns</td>
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<td>RPD 30</td>
<td>Residential Planned Development 30 (zoning designation)</td>
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<td>RPD 30A</td>
<td>Residential Planned Development – Affordable (zoning designation)</td>
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<td>RTP/SCS</td>
<td>Regional Transportation Plan/Sustainable Communities Strategy</td>
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<td>RWQCB</td>
<td>Regional Water Quality Control Board</td>
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<tr>
<td>SAFE</td>
<td>Strategy, Accountability, Focus, Evaluation (OCSD Division)</td>
</tr>
<tr>
<td>SB</td>
<td>Senate Bill</td>
</tr>
<tr>
<td>SCAG</td>
<td>Southern California Association of Governments</td>
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<tr>
<td>SCAQMD</td>
<td>South Coast Air Quality Management District</td>
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<tr>
<td>SCCIC</td>
<td>South Central Coastal Information Center</td>
</tr>
<tr>
<td>sf</td>
<td>square foot/feet</td>
</tr>
<tr>
<td>Acronym</td>
<td>Description</td>
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</tr>
<tr>
<td>SF$_6$</td>
<td>sulfur hexafluoride</td>
</tr>
<tr>
<td>SMARA</td>
<td>Surface Mining and Reclamation Act</td>
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<td>SMWD</td>
<td>Santa Margarita Water District</td>
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<td>SOCWA</td>
<td>Southern Orange County Wastewater Authority</td>
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<tr>
<td>SR</td>
<td>State Route</td>
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<td>Saddleback Valley Unified School District</td>
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<td>United States Army Corps of Engineers</td>
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<td>United States Fish and Wildlife Services</td>
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<td>UWMP</td>
<td>Urban Water Management Plan</td>
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<tr>
<td>VdB</td>
<td>vibration velocity decibel(s)</td>
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<tr>
<td>VEC</td>
<td>vapor encroachment condition</td>
</tr>
<tr>
<td>VHFHSZ</td>
<td>Very High Fire Hazard Severity Zone</td>
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<tr>
<td>WDR</td>
<td>Waste Discharge Requirement</td>
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<tr>
<td>Working Group</td>
<td>GHG CEQA Significance Threshold Stakeholder Working Group</td>
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<td>WQMP</td>
<td>Water Quality Management Plan</td>
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1.0 INTRODUCTION

In accordance with the California Environmental Quality Act (CEQA) and the State CEQA Guidelines, this Initial Study/Mitigated Negative Declaration (IS/MND) has been prepared for the proposed Mission Foothills Residential project (proposed project) near the northern boundary of Mission Viejo in Orange County, California. Consistent with State CEQA Guidelines Section 15071, this IS/MND includes a description of the proposed project, an evaluation of the potential environmental impacts, and findings from the environmental analysis.

This IS/MND evaluates the potential environmental impacts that may result from development of the project. Consistent with State CEQA Guidelines Section 15050, the City of Mission Viejo (City) is the Lead Agency under CEQA and is responsible for adoption or certification of the IS/MND and approval of the project.

1.1 CONTACT PERSON

Any questions or comments regarding the preparation of this IS/MND, its assumptions, or its conclusions should be referred to:

Larry Longenecker, AICP
Planning & Economic Development Manager
City of Mission Viejo
200 Civic Center
Mission Viejo, California 92691
Phone: (949) 470-3053
Email: llongenecker@cityofmissionviejo.org
2.0 PROJECT DESCRIPTION

2.1 PROJECT LOCATION AND SITE DESCRIPTION

2.1.1 Regional Setting
The project site is located at 28731–28841 Los Alisos Boulevard in the northern portion of Mission Viejo, which itself is located within Orange County. Mission Viejo encompasses approximately 18 square miles of land within Orange County and is bounded by Rancho Santa Margarita to the east; Laguna Hills, Laguna Niguel, and Lake Forest to the west; and San Juan Capistrano to the south.

As shown on Figure 2-1, Project Location, regional access to the project site is provided by State Route (SR) 241. SR-241 is a 12-mile toll road that travels north to south from Yorba Linda to Rancho Santa Margarita and connects with SR-133, SR-261, and SR-91. (All the figures for Chapter 2 are provided at the end of the chapter text.)

2.1.2 Project Vicinity and Surrounding Land Uses
The approximately 6.8-acre (ac) project site is currently developed with one multi-tenant commercial building and a paved asphalt parking lot. The project site is bounded by SR-241 to the north; a vacant lot and hotel development to the east; commercial uses, a surface parking lot, and Los Alisos Boulevard to the south; and a residential apartment complex to the west. The Upper Oso Reservoir, which is an earth-fill dam, is directly north of SR-241. Single-family residential uses are south of Los Alisos Boulevard. The project site is primarily surrounded by residential and commercial uses, with open space areas also present in the project vicinity. Refer to Figure 2-2, Project Vicinity, for an aerial photograph of the existing project site and the surrounding area.

The project site includes the western portion of Assessor’s Parcel Number (APN) 839-161-12. Figure 2-3, Parcel Map, shows the surrounding parcels in relation to the project site.

2.1.3 Existing Project Site
The project site comprises the northeastern portion of the existing Mission Foothill Marketplace commercial center. The project site is flat and is currently developed with one multi-tenant commercial building and a surface parking lot. Two single-tenant pads (Buildings 2 and 3), two multi-tenant buildings (Buildings 1 and 4), and an associated surface parking lot are present directly south of the project site but are not part of the proposed project. Currently, the eastern portion of the complex is undeveloped and a majority of the commercial spaces in the complex are vacant.

The project site includes a central parking lot serving the entire complex. Landscaping on the project site includes several mature trees and shrubs around the perimeter of the site and throughout the parking lot. The commercial complex is characterized by Spanish-style architecture, including clay roof tiles, and the building façades feature earth-toned stone and colored tile.

Vehicular access to the site is provided via two driveways on Los Alisos Boulevard. Pedestrian and cyclist access to the site are provided via sidewalks and bicycle lanes, respectively, along Los Alisos Boulevard. In addition, a pedestrian bridge links the project site with the existing apartment
development to the west. The perimeter of the site is partially secured by a chain-link fence along the northern boundary and a wrought-iron fence along the western boundary.

2.1.4 Current Land Use and Zoning Designations

As shown on Figure 2-4, General Plan Land Use Map, the project site currently has two land use designations: Commercial Highway and Residential 30. The intent of the Commercial Highway designation is to accommodate highway-oriented businesses providing goods and services to customers utilizing major transportation corridors. Allowable uses within the Commercial Highway designation include general commercial and professional office uses, as well as uses that serve both local and nonlocal populations, such as automobile dealerships, automotive repair services, and hotels and motels. The Residential 30 designation allows residential densities ranging from 14 to 30 dwelling units per acre (du/ac).

As shown on Figure 2-5, Zoning Map, the project site currently has two zoning classifications: Commercial Highway (CH) and Residential Planned Development – Affordable (RPD 30A). Similar to the Commercial Highway land use designation, the CH zone accommodates highway-oriented businesses that offer goods and services to customers traveling major transportation corridors. Typical uses allowed in the CH zone include general commercial and professional office uses. The RPD 30A zone allows residential densities ranging from 14 to 30 du/ac and requires a minimum percentage of the units to be affordable.1

2.2 PROJECT CHARACTERISTICS

The project would involve the demolition of an existing 99,500-square-foot (sf) commercial building on the project site and construction of 105 new homes, 275 parking spaces (comprised of 210 garage spaces and 65 guest spaces), and community facilities. The project proposes a total residential building footprint of 91,180 sf. Figure 2-6, Conceptual Site Plan, illustrates the proposed site configuration following project implementation.

The proposed residential development would include 61 three-story townhomes (ranging from 1,215 to 1,950 sf) with two- to four-bedroom floor plans, private patios, and two-car garages. The project would also include 44 three-story single-family detached homes (ranging from 1,886 to 2,130 sf) with three- to four-bedroom floor plans, private yards, and two-car garages. At approximately 15.7 du/ac, the proposed residential development would have a lower density than the apartment complex directly west of the site, which has a density of 24 du/ac. As shown in Table 2.A, a total of 192,116 sf of residential building area is proposed on the project site.

As part of the project, the Applicant has committed to providing 16 percent of the units (17 out of the total 105 proposed units) as moderate-income affordable.2 The final income level of affordable units will be determined by the City through the project review and approval process.

1 Section 9.10.030, “RPD 30A residential planned development by right,” of the City’s Municipal Code stipulates affordable housing requirements for the RPD 30A zone.

2 Although a final sales price has not yet been determined, the Applicant estimates that restricted moderate-income units would be priced at approximately $411,000 each.
Table 2.A: Proposed Residential Uses

<table>
<thead>
<tr>
<th>Floor Plan</th>
<th>Unit Area</th>
<th>Proposed Number of Units</th>
<th>Total Area (sf)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Townhomes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Floor Plan 1</td>
<td>1,215 sf per unit</td>
<td>19</td>
<td>23,085</td>
</tr>
<tr>
<td>Floor Plan 2</td>
<td>1,950 sf per unit</td>
<td>19</td>
<td>37,050</td>
</tr>
<tr>
<td>Floor Plan 3</td>
<td>1,880 sf per unit</td>
<td>23</td>
<td>43,240</td>
</tr>
<tr>
<td><strong>Total Townhomes</strong></td>
<td></td>
<td><strong>61</strong></td>
<td><strong>103,375</strong></td>
</tr>
<tr>
<td>Single-Family Homes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Floor Plan 1</td>
<td>1,886 sf per unit</td>
<td>6</td>
<td>11,316</td>
</tr>
<tr>
<td>Floor Plan 2</td>
<td>1,945 sf per unit</td>
<td>19</td>
<td>36,955</td>
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<tr>
<td>Floor Plan 3</td>
<td>2,130 sf per unit</td>
<td>19</td>
<td>40,470</td>
</tr>
<tr>
<td><strong>Total Single-Family Homes</strong></td>
<td></td>
<td><strong>44</strong></td>
<td><strong>88,741</strong></td>
</tr>
<tr>
<td><strong>Total Proposed Residential</strong></td>
<td></td>
<td><strong>105</strong></td>
<td><strong>192,116</strong></td>
</tr>
</tbody>
</table>

sf = square feet

As part of the project, a community recreation area is proposed at the eastern portion of the residential development and would include a pool, sitting areas, and restrooms. Other amenities proposed throughout the residential development include a walking loop and central walkway, gathering spaces, barbecues, and a playground.

Access to the project site would be provided via an easement on the adjacent parcel and would connect the proposed internal roadway to the signalized intersection at Los Alisos Boulevard. The proposed internal roadway would loop around the residential development, and several cul-de-sacs would be positioned off of the internal roadway, providing access to residential units. The project would connect to existing water, storm drain, and sewer services on the site.

2.2.1 Parcel Reconfiguration

As part of the project, a lot line adjustment would be required to reconfigure the project site (refer to Figure 2-3, Parcel Map). The project site (APN 839-161-12) would consist of the residential development and associated parking. The lot line adjustment would also impact the westernmost boundary of APN 839-161-16, which would align the parcel with the proposed internal roadway. The easternmost portion of APN 839-161-12 would converge with APN 839-161-16.

As a separate action, APN 839-161-15 would expand to include the existing Building 4 and the central parking area that would serve the commercial complex following project implementation.

Existing parcels in the project vicinity, including APNs 839-161-13, -14, and -17, would not be impacted by the proposed parcel reconfiguration.

2.2.2 General Plan and Zoning

As stated previously, due to the existing parcel configuration, the project site currently has two General Plan land use designations: Commercial Highway and Residential 30. As part of the project,
the land use designation for the project site would change from Commercial Highway to Residential 30, which would allow residential densities ranging from 14 to 30 du/ac. In addition, the project site currently has two zoning classifications: CH and RPD 30A. As such, the project site would require a zone change from CH and RPD 30A to Residential Planned Development 30 (RPD 30), which would allow high-density single-family and multifamily residential uses at a density range of 14 to 30 du/ac. As stated previously, the proposed project’s density would be approximately 15.7 du/ac.

Following approval of the General Plan Amendment and zone change, the land use designation and zoning classification associated with the project site would be consistent with the proposed use. The land use designation and zoning classification would only change on the project site and would not be applicable to the remainder of the Mission Foothill Marketplace commercial center. As a result of project implementation, all other land use designations and zoning classifications in the project vicinity would remain the same as under existing conditions. Any General Plan Amendment or zone change proposed as part of a future project (that is subject to discretionary approval) would be subject to separate environmental review on a project-specific basis, in accordance with the provisions of CEQA and the State CEQA Guidelines.

2.2.3 Building Design

As discussed above, the proposed project would include 105 new homes, 275 parking spaces, and community facilities. Community facilities throughout the development would include a main pool with sitting areas and restrooms, a walking loop and central walkway, gathering spaces, barbeques, and a playground.

The proposed three-story townhomes would be designed with contemporary architectural elements, multi-level rooflines, and a complementary color scheme. The townhomes would incorporate a stucco finish, stone veneer accents, metal awnings and deck railing, and vinyl window and door trim in the exterior design. Heating, ventilation, and air conditioning (HVAC) equipment would be installed on the roof of the building and would be screened or shielded from view. The townhomes would be situated in rows of five, six, and eight units. The tallest point of the structure would be a ridgeline with a height of approximately 42 feet (ft). The tallest parapet would be approximately 37.5 ft in height.

The proposed three-story single-family detached homes would be designed to be visually consistent with the townhomes, including similar color schemes and architectural elements. The single-family homes would feature similar design elements as the townhomes, with a stucco finish, stone veneer accents, metal awnings and deck railing, and vinyl window and door trim. The single-family homes would be designed with Spanish-, Tuscan-, and Farmhouse-style influences. The tallest point of each single-family detached home would be approximately 38.7 ft in height.

2.2.4 Parking

The proposed project would be consistent with the City’s parking requirements (refer to Section 9.25.020, Number of Parking Spaces Required, in the City’s Municipal Code). Table 2.B shows a breakdown of the City’s parking requirements as well as parking to be provided as part of the project and the commercial development adjacent to the project site.
The proposed project would require a minimum of 245 parking spaces, including 210 garage spaces and 35 guest spaces. As shown in Table 2.B, the project would provide a total of 275 on-site parking spaces, including 210 garage spaces and 65 guest spaces. The project would satisfy the City’s parking requirements and would provide a surplus of 30 parking spaces on the project site.

Table 2.B also shows parking associated with the existing commercial development directly south of the project site. Buildings 1 through 4, which support various commercial and restaurant uses, would require a minimum of 210 parking spaces. A total of 222 parking spaces would continue to be provided and available for the existing commercial development, which would satisfy the City’s parking requirements and would provide a surplus of 12 parking spaces.

Per the California Building Code (CBC), 5 percent of unassigned residential spaces must be provided in compliance with the Americans with Disabilities Act (ADA). Out of the 35 guest spaces provided for the residential development, 4 accessible parking spaces would be provided in compliance with the ADA and would be located near the recreation areas. As required by Section 9.25.025, Accessible Parking Requirements, of the City’s Municipal Code, ADA-compliant commercial parking standards would require 7 accessible parking spaces for the commercial development with a parking lot containing between 201 and 300 total spaces. Of those 7 spaces, 2 would be required to be van-accessible spaces per the CBC. The proposed project is consistent with these parking requirements.

California Green Code Sections 5.106.5.3 and A5.106.5.3 require electric vehicle charging infrastructure in the parking lots for new, nonresidential buildings. California Green Code Section 5.106.5.2 requires designated parking for clean air vehicles in new construction or alternations that add 10 or more vehicular parking spaces. Furthermore, California Green Code Sections 5.106.4 requires short-term and long-term bicycle parking, but applies only to new construction adding greater than 9 visitor parking spaces. The proposed project and commercial development adjacent to
the site would not construct new nonresidential buildings and would not add nonresidential parking spaces. Therefore, these code sections do not apply to either the proposed project or the adjacent existing commercial development.

For the reasons stated above, the project would satisfy City and State parking requirements, and adequate standard and ADA accessible parking would be provided for both the project site and the adjacent existing commercial development.

2.2.5 Landscaping

Upon implementation of the project, existing landscaping on the project site would be removed and replaced with new landscaping. Landscaping proposed as part of the project would consist of ornamental trees and shrubbery throughout the residential development. As part of the project, shared landscaping would comprise 47,090 sf and private landscaping (i.e., private yards) would comprise 25,780 sf. In total, the project would include 72,870 sf of landscaping on the project site.

Implementation of the project would include landscaping improvements along Los Alisos Boulevard and at the entrance to the complex with the signalized intersection. Landscaping throughout the complex would be consistent and provide a cohesive design. Landscaping improvements at the perimeter of the complex are intended to integrate the proposed project with the surrounding neighborhood context and streetscape character.

2.2.6 Lighting

Outdoor lighting included as part of future development on the project site would be typical of residential uses and would consist of wall-mounted lighting as well as pole-mounted lights (10 to 12 ft in height) along the proposed internal roadway. In addition, 36-inch bollards would be installed along sidewalks. Trellis lighting would be used as accent lighting in the community recreation area. All of the project’s outdoor lighting would be light-emitting diode (LED) lighting and would be directed downward and shielded to minimize off-site spill. The location of all exterior lighting would comply with lighting standards established in the City’s Municipal Code.

2.2.7 Sustainability Features

Implementation of the project would be consistent with the California Green Building Code and, as such, would include the following required sustainability features:

- Installation of water-conserving plumbing fixtures and fittings.
- Compliance with the California Department of Water Resources’ Model Water Efficient Landscape Ordinance (MWELO).
- Installation of “purple pipes” to maximize the use of reclaimed water.
- Installation of energy-efficient lighting technologies.
- Installation of “smart” weather-based irrigation controllers.
• Utilization of bubblers or low-flow sprinklers for all non-turf areas.

• Installation of electric vehicle charging capabilities in a minimum of 8 percent of the total code-required parking spaces and garages on site.

2.2.8 Earthwork and Grading

The project site has a uniform slope to the southwest of approximately 3 percent. Project construction would involve demolition of an existing commercial building and grading as required for construction of the residential buildings. Grading activities would include the import of approximately 10,000 cubic yards (cy) of soil. No export of soil is anticipated at this time.

2.2.9 Construction Duration and Phasing

Construction of the proposed project is anticipated to occur over the course of 26 months, beginning in June 2019 and ending in July 2021. The construction schedule includes the following approximated phase durations: demolition (30 days); site preparation (10 days); grading (20 days); utility installation (140 days); paving (45 days); model building construction (100 days); and building construction and architectural coating (15 months). Building production and architectural coating would occur in five phases, with completion of the first phase anticipated in December 2020. Project opening would occur in January 2021, and the final building production phase would be completed in July 2021.

2.3 DISCRETIONARY ACTIONS, PERMITS, AND OTHER APPROVALS

In accordance with Sections 15050 and 15367 of the State CEQA Guidelines, the City is the designated Lead Agency for the proposed project and has principal authority and jurisdiction for CEQA actions and project approval. Responsible Agencies are those agencies that have jurisdiction or authority over one or more aspects associated with the development of a proposed project and/or mitigation. Trustee Agencies are State agencies that have jurisdiction by law over natural resources affected by a proposed project.

The discretionary actions to be considered by the City as part of the proposed project include:

• **General Plan Amendment:** The project proposes to change the site’s General Plan land use designation from Commercial Highway and Residential 30 to Residential 30.

• **Zone Change:** The project proposes to change the site’s zoning classification from CH and RPD 30A to RPD 30.

• **Lot Line Adjustment:** A lot line adjustment would be required to reconfigure the existing parcels on the project site.
• **Planned Development Permit:** A Planned Development Permit would be required to review and approve the location, design, configuration, and impact of the proposed development.¹

• **Tentative Tract Map:** A Tentative Tract Map would be required to subdivide the property.

• **CEQA:** The project would involve the adoption of an IS/Mitigated Negative Declaration (MND).

In addition, if required, the City would issue ministerial permits (including grading permits and building permits) to allow site preparation and construction of the proposed on-site and off-site infrastructure connections.

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¹ Section 9.47, Planned Development Permits, of the City’s Municipal Code outlines findings required for approval of a planned development permit application.
Mission Foothills Residential Project

Project Location

LEGEND

- Project Site

SOURCE: USGS 7.5' Quad - El Toro (1982)

I:\SHO1704.02\GIS\MXD\ProjLoc_USGS.mxd (8/15/2018)
FIGURE 2-3

Parcel Map

LEGEND

Project Site
Existing Assessor Parcels
Proposed Assessor Parcels

APN 839-161-12
APN 839-161-13
APN 839-161-14
APN 839-161-15
APN 839-161-16
APN 839-161-17
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FIGURE 2-4
Mission Foothills Residential Project
General Plan Land Use Map

Legend
- Project Site
- Residential 6.5 (3.5-6.5 du/ac)
- Residential 14 (6.5-14.0 du/ac)
- Residential 30 (14.0-30.0 du/ac)
- Commercial Highway
- Recreation/Open Space
- Community Facility
- Transportation Corridor

SOURCE: City of Mission Viejo (2007)
Figure 2-5: Mission Foothills Residential Project Zoning Map

Legend:
- Project Site
- RPD 6.5 (Residential Planned Development)
- RPD 14 (Residential Planned Development)
- RPD 30 (Residential Planned Development)
- RPD 30A (Residential Planned Development - Affordable)
- CH (Commercial Highway)
- R (Recreation)
- CF (Community Facility)

Source: City of Mission Viejo (2007)

I:\SHO17D4.02\GIS\MXD\Zoning.mxd (10/18/2018)
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3.0 ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below potentially would be affected by the project and include at least one impact that is a "Potentially Significant Impact," as indicated by the checklist on the following pages. Please see the Environmental Checklist for additional information.

☐ Aesthetics  ☐ Agriculture and Forestry  ☐ Air Quality
☐ Biological Resources  ☐ Cultural Resources  ☐ Geology and Soils
☐ Greenhouse Gas Emissions  ☐ Hazards and Hazardous Materials  ☐ Hydrology and Water Quality
☐ Land Use/Planning  ☐ Mineral Resources  ☐ Noise
☐ Population/Housing  ☐ Public Services  ☐ Recreation
☐ Transportation/Traffic  ☐ Tribal Cultural Resources  ☐ Utilities and Service Systems
☐ Findings of Mandatory 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 the 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 that earlier EIR or Negative Declaration, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Larry Longenecker, AICP
Planning & Economic Development Manager

4-15-19

Date
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4.0 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 effect 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 significant.
4.1 AESTHETICS

<table>
<thead>
<tr>
<th></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><strong>Except as provided in Public Resources Code 21099, would the project:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<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, rock outcroppings, and historic buildings within a State scenic highway?</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
<td>☒</td>
</tr>
<tr>
<td>(c)  In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?</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 affect day or nighttime views in the area?</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
<td>☒</td>
</tr>
</tbody>
</table>

4.1.1 Impact Analysis

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

**Less Than Significant Impact.** A scenic vista is the view of an area that is visually or aesthetically pleasing from a certain vantage point. It is usually viewed from some distance away. Aesthetic components of a scenic vista include (1) scenic quality, (2) sensitivity level, and (3) view access. A scenic vista can be impacted in two ways: a development project can have visual impacts by either directly diminishing the scenic quality of the vista or by blocking the view corridors or “vista” of the scenic resource. Important factors in determining whether a proposed project would block scenic vistas include the project’s proposed height, mass, and location relative to surrounding land uses and travel corridors.

The City of Mission Viejo’s General Plan Conservation/Open Space Element (2013d) provides direction regarding the conservation, development, and utilization of natural resources and open space within Mission Viejo. Specifically, Policy 3.7 of the Conservation/Open Space Element discusses the preservation of views of significant scenic value:

*Policy 3.7: Preserve views of significant value along streets and highways that adjoin such areas as a lake, hillside, ridgeline, creek, open space, or recreational area.*

The City’s General Plan does not designate scenic vistas within Mission Viejo. However, potential scenic vistas from within Mission Viejo include views of the Santa Ana Mountains to the north and east; views of Lake Mission Viejo and the Upper Oso Reservoir in the northern portion of the city; and views of Trabuco Canyon, located northeast of the city.
No designated scenic vistas are visible from the project site. The project site is within an urbanized area predominantly developed with residential and commercial uses. The surrounding views comprise a developed urban and suburban environment that is built out. In its existing condition, the project site is developed and contains a multi-tenant commercial building and associated parking lot. The project includes the development of a new residential community that would replace the existing commercial building and a portion of the parking lot within the existing commercial complex. The proposed townhomes and single-family detached units would be a maximum of three stories and approximately 42 ft in height at their tallest point. The proposed residential development would be similar in height to the existing commercial building that it would replace. Existing buildings in the project vicinity include a three-story hotel development to the east; one-story commercial uses to the south; and a three-story residential apartment complex to the west. A private residential development, consisting of one- to two-story single-family homes, is located south of Los Alisos Boulevard. As such, the residential development proposed as part of the project would not be significantly taller than the existing structures in the vicinity of the site. Further, the proposed residential development would be similar in height to the existing commercial building that it would replace, and the density (or massing) would be less than that of the adjacent apartment complex. Although the residential development may partially obstruct views of the Santa Ana Mountains and Upper Oso Reservoir to the north, the proposed project would be similar in height to existing structures in the project’s vicinity, as well as the existing commercial building it would replace. Therefore, the proposed project would not have a substantial adverse effect on a scenic vista.

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

**No Impact.** The California Department of Transportation (Caltrans) Landscape Architecture Program administers the Scenic Highway Program, contained in the Streets and Highway Code, Sections 260–263. Scenic highways are classified as either Officially Listed or Eligible. There are no Officially Listed or Eligible State-designated scenic highways in Mission Viejo (Caltrans 2011). As such, the project would not impact scenic resources within a State-designated scenic highway.

The City of Mission Viejo General Plan Circulation Element (2013c) designates scenic highways in Mission Viejo in an effort to enhance the community and ensure development does not impact existing visual resources. The only locally designated scenic route in Mission Viejo is Oso Parkway, located approximately 4.5 miles (mi) south of the project site. Due to the distance and topography, the project site is not visible from Oso Parkway. Therefore, the proposed project does not have the potential to damage scenic resources from designated scenic highways, and no mitigation is required.

(c) In non-urbanized areas, would the project substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

**No Impact.** The project site is currently developed with a multi-tenant commercial building and associated parking lot. The project is within an urbanized area predominantly developed with
residential and commercial uses. A variety of trees and ornamental landscaping are within the parking lot and surrounding the commercial building on site. The project includes the development of a new residential community that would replace the existing commercial building, a portion of the parking lot, and landscaping contained on the project site within the existing commercial complex. As discussed in detail below, the proposed project would not conflict with applicable zoning and General Plan regulations governing scenic quality.

**Zoning.** Due to the existing parcel configuration, the project site currently has two zoning classifications: CH and RPD 30A. As such, the project site would require a zone change from CH and RPD 30A to RPD 30, which would allow high-density single-family and multifamily residential uses at a density range of 14 to 30 du/ac.

Chapter 9.10 of the Municipal Code outlines permitted uses and minimum development standards allowed in residential zones. One purpose of these regulations is to ensure compliance with appropriate standards related to aesthetics and scenic quality. Table 4.1.A shows the proposed project’s consistency with development standards outlined in Section 9.10.020 (a) of the Municipal Code.

As discussed in Table 4.1.A, the project Applicant has requested variances related to minimum front setbacks, minimum distances between buildings, and maximum main building and structure height. Upon the City’s approval of the variances requested by the project Applicant, the proposed project would be consistent with development standards required in the RPD 30 zone contained in the City’s Municipal Code.

**General Plan.** According to the General Plan Land Use Element (2013), the project site currently has two General Plan land use designations: Commercial Highway and Residential 30. As part of the project, the land use designation for the project site would change from Commercial Highway to Residential 30, which would allow residential densities ranging from 14 to 30 du/ac. The project’s proposed density of approximately 15.7 du/ac would be substantially lower than the maximum allowable density of 30.0 du/ac.

The Land Use Element includes goals and policies related to urban design. As shown in Table 4.1.B, the project would be consistent with applicable Land Use Element goals and policies related to aesthetics and scenic quality.

The project would be consistent with Land Use Element goals and policies related to aesthetics and scenic quality. The design of the proposed residential development would be compatible with the existing style of the surrounding neighborhood. As part of the project, proposed landscaping would improve project site conditions and enhance views of the site from adjacent properties. Overall, improvements associated with the proposed project are anticipated to improve the existing visual character of the project site and would serve to provide increased visual cohesion between the project site and the surrounding area.
Table 4.1.A: Zoning Development Standards Consistency Analysis

<table>
<thead>
<tr>
<th>Residential Zoning Districts Development Standards</th>
<th>Proposed Project Consistency</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Maximum Density: 30.0 du/ac</strong></td>
<td><strong>Consistent.</strong> The project proposes approximately 15.7 du/ac, which is less than the maximum density of 30.0 du/ac. Therefore, the proposed project would be consistent with the maximum density requirement.</td>
</tr>
<tr>
<td><strong>Minimum Lot Area: 5,000 sf</strong></td>
<td><strong>Consistent.</strong> The project site is approximately 6.8 acres, or 296,208 sf, which is substantially larger than the required minimum lot area of 5,000 sf. Therefore, the proposed project would be consistent with the minimum lot requirement.</td>
</tr>
<tr>
<td><strong>Minimum Lot Width: 100 ft</strong></td>
<td><strong>Consistent.</strong> The project site is approximately 680 ft wide, which is substantially larger than the required minimum lot width of 100 ft. Therefore, the proposed project would be consistent with the minimum lot width requirement.</td>
</tr>
<tr>
<td><strong>Minimum Lot Depth: 150 ft</strong></td>
<td><strong>Consistent.</strong> The project site is approximately 280 ft deep, which is substantially larger than the required minimum lot depth of 150 ft. Therefore, the proposed project would be consistent with the minimum lot depth requirement.</td>
</tr>
<tr>
<td><strong>Minimum Front Setback: 30 ft</strong></td>
<td><strong>Consistent with Variance.</strong> The front setback within the residential development would be a minimum of approximately 10 ft, which is less than the minimum front setback requirement of 30 ft. However, the project Applicant has requested a variance allowing a 10 ft front setback. Therefore, with approval of the requested variance, the proposed project would be consistent with the minimum front setback requirement.</td>
</tr>
<tr>
<td><strong>Minimum Rear Setback: 30 ft</strong></td>
<td><strong>Consistent.</strong> The rear setback within the residential development would be a minimum of approximately 34 ft, which is larger than the minimum rear setback requirement of 30 ft. Therefore, the proposed project would be consistent with the minimum rear setback requirement.</td>
</tr>
<tr>
<td><strong>Minimum Side Setback: 15 ft</strong></td>
<td><strong>Consistent.</strong> The side setback within the residential development would be a minimum of approximately 22 ft, which is greater than the minimum side setback requirement of 15 ft. Therefore, the proposed project would be consistent with the minimum side setback requirement.</td>
</tr>
<tr>
<td><strong>Maximum Structural Parcel Coverage: 50 percent</strong></td>
<td><strong>Consistent.</strong> After the parcel reconfiguration proposed as part of the project, the parcel would be 6.8 ac in size. The proposed residential structures would cover approximately 2.1 ac, or 31 percent, of the parcel, which is less than the maximum structural parcel coverage requirement of 50 percent. Therefore, the proposed project would be consistent with the maximum structural parcel coverage.</td>
</tr>
<tr>
<td><strong>Minimum Distance Between Buildings: 20 ft</strong></td>
<td><strong>Consistent with Variance.</strong> The buildings within the residential development would be a minimum of 6 ft apart, which is less than the required 20 ft minimum distance between buildings. However, the project Applicant has requested a variance allowing 6 ft between buildings. Therefore, with approval of the requested variance, the proposed project would be consistent with the required distance between buildings.</td>
</tr>
<tr>
<td><strong>Minimum Private Outdoor Living Space: 80 sf</strong></td>
<td><strong>Consistent.</strong> As part of the project, private yards, patios, and balconies provided for individual units would be a minimum of 80 sf in combined size. Therefore, the proposed project would be consistent with the required minimum amount of private outdoor living space.</td>
</tr>
<tr>
<td><strong>Maximum Main Building and Structure Height: 35 ft or two stories, whichever is less</strong></td>
<td><strong>Consistent with Variance.</strong> The project proposes to build three-story townhomes with a maximum height of approximately 42 ft. However, the project Applicant has requested a variance allowing a maximum building height of 42 ft. Therefore, with approval of the requested variance, the proposed project would be consistent with the building height requirement.</td>
</tr>
</tbody>
</table>

Source: Mission Viejo Municipal Code, Section 9.10.020 (a), Figure II-1, Zoning District Development Standards

ac = acre

du/ac = dwelling units per acre

ft = feet/foot

sf = square feet
Table 4.1.B: General Plan Consistency Analysis

<table>
<thead>
<tr>
<th>Goals and Policies</th>
<th>Proposed Project Consistency</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Goal 3:</strong> Maintain community identity and development quality for the City and its neighborhoods.</td>
<td><strong>Consistent.</strong> The project would maintain community identity and development quality because it would be visually consistent with the surrounding residential neighborhoods. Improvements associated with the project are anticipated to improve the existing visual character of the project site and would serve to provide increased visual cohesion between the project site and surrounding area. Therefore, the proposed project would be consistent with Goal 3 in the Land Use Element.</td>
</tr>
<tr>
<td><strong>Policy 3.1:</strong> Maintain the integrity of residential neighborhoods by preventing the intrusion of incompatible land uses.</td>
<td><strong>Consistent.</strong> The project site is surrounded by residential land uses to the east, west, and south. As such, development of the proposed residential community would prevent the intrusion of incompatible land uses in an area predominantly characterized by residential development. Therefore, the project would be consistent with Policy 3.1 in the Land Use Element.</td>
</tr>
<tr>
<td><strong>Policy 3.2:</strong> Ensure that new development and land uses are architecturally consistent and compatible in scale and style with existing development and identified standards for the various districts within the City.</td>
<td><strong>Consistent.</strong> The proposed residential development would be designed with contemporary architectural elements, multi-level rooflines, and a complementary color scheme. Architectural elements in the exterior design would include stucco finish, stone veneer accents, metal awnings and deck railings, and vinyl window and door trim. The project would be designed with Spanish-, Tuscan-, and Farmhouse-style influences. When complete, the development would be representative of a modern residential community. The surrounding neighborhoods are designed with Tuscan- and Spanish-style influences. As such, the proposed architectural styles of the residential development would be compatible with the existing style of the surrounding neighborhood. Further, improvements associated with the proposed project are anticipated to improve the existing visual character of the project site and would serve to provide increased visual cohesion between the project site and the surrounding area. Therefore, the project would be consistent and compatible with Policy 3.2 in the Land Use Element.</td>
</tr>
<tr>
<td><strong>Policy 3.5:</strong> Emphasize quality of design for new development and rehabilitation of existing development, including the preservation and increase of arterial landscape space.</td>
<td><strong>Consistent.</strong> As part of the project, a variety of trees and shrubbery would be planted throughout the residential development. Landscaping in the interior of the project site would provide accents in open space areas and contribute to the attractiveness of the community. Landscaping would include a variety of trees and vegetation in the interior of the project site between buildings; along the northern perimeter of the project site, adjacent to SR-241; along the eastern perimeter of the project site; along the western perimeter of the project site, which would act as a buffer between the neighboring residential community; and along the southern perimeter of the project site, which would act as a buffer from the neighboring commercial uses. Compared to the project site’s current condition, the proposed complementary landscape elements would enhance views of the project site from adjacent properties. Therefore, the proposed project would be consistent with Policy 3.5 in the Land Use Element.</td>
</tr>
</tbody>
</table>

Source: Mission Viejo General Plan Land Use Element (2013)
SR = State Route

**Key View Analysis.** Due to anticipated public interest in project-related impacts with respect to aesthetic resources, a key view analysis is included as part of this section. Key views were taken from public roadways. Figure 4.1-1, Key View Locations, illustrates the vantage point from which
each key view photograph was taken and illustrates the representative view from that location. (All the figures for Section 4.1, Aesthetics, are provided at the end of the section.)

Figures 4.1-2(a) through 4.1-2(c), Key Views 1, 2, and 3, respectively, illustrates each of the three key views selected for this analysis. These key views include: (1) an Existing Condition view, which shows the viewshed in its existing state; and (2) a Project Rendering view, which shows the future viewshed following construction of the proposed project. The Project Renderings are representative of scale, mass, and proportion of future development subsequent to the approval of the proposed project. The following discussion describes the three key views.

- **Key View 1:** As shown on Figure 4.1-2(a), Key View 1 depicts the view of the project site from Los Alisos Boulevard at the signalized intersection looking north. Key View 1 represents the eastern portion of the project site.

- **Key View 2:** As shown on Figure 4.1-2(b), Key View 2 depicts the view of the project site from Los Alisos Boulevard looking northeast. Key View 2 represents the western portion of the project site.

- **Key View 3:** As shown on Figure 4.1-2(c), Key View 3 depicts the view from Mission Foothills Marketplace driveway looking northeast. Key View 3 represents the central portion of the project site.

Following project implementation, new development proposed by the project would include three-story residential uses at a maximum building height of 42 ft. As shown in the Project Renderings as part of Key Views 1 through 3, the proposed project would have minimal impact on the existing scenic quality of the project site from these vantage points. Landscaping improvements proposed as part of the project at the perimeter of the complex are intended to integrate the proposed project with the surrounding neighborhood context and streetscape character. Additionally, the project would be consistent with the height and mass of the adjacent residential development directly west of the project site. Further, the project would be consistent with development standards required in the RPD 30 zone contained in the City’s Municipal Code (upon the City’s approval of the variances requested by the Applicant), as well as Land Use Element goals and policies related to aesthetics and scenic quality. Overall, improvements associated with the proposed project are anticipated to improve the existing visual character of the project site and would serve to provide increased visual cohesion between the project site and the surrounding area. Therefore, the proposed project would not degrade the visual character of the planning area.

**Summary.** Following approval of the zone change and General Plan Amendment, the zoning classification and land use designation associated with the project site would be consistent with the proposed use. For the reasons stated above, the proposed project would not degrade the visual character of the planning area or conflict with applicable zoning and General Plan regulations governing scenic quality. No mitigation is required.
(d) Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

Less Than Significant Impact. The impact of nighttime lighting depends on the type of use affected, the proximity to the affected use, the intensity of specific lighting, and the background or ambient level of the combined nighttime lighting. Nighttime ambient light levels may vary considerably depending on the age, condition, and abundance of point-of-light sources present in a particular view. The use of exterior lighting for security and aesthetic illumination of architectural features may contribute to ambient nighttime lighting conditions.

The spillover of light onto adjacent properties has the potential to interfere with certain activities, including vision, sleep, privacy, and general enjoyment of the natural nighttime condition. Light-sensitive uses include residential, some commercial and institutional uses, and, in some situations, natural areas. Changes in nighttime lighting may become significant if a proposed project substantially increases ambient lighting conditions beyond its property lines or if the project lighting routinely spills over into adjacent light-sensitive land use areas.

Reflective light (glare) is caused by sunlight or artificial light reflecting from finished surfaces (e.g., window glass) or other reflective materials. Glass and other materials can have many different reflectivity characteristics. Buildings constructed of highly reflective materials from which the sun reflects at a low angle commonly cause adverse glare. Reflective light is common in urban areas. Glare generally does not result in the illumination of off-site locations but does result in a visible source of light viewable from a distance.

Nighttime illumination impacts are evaluated in terms of the project’s net change in ambient lighting conditions and proximity to light-sensitive land uses. The site is currently developed with a multi-tenant commercial building and associated parking lot. The project site is surrounded by a variety of commercial and residential uses. Sensitive receptors subject to potential light and glare impacts in the vicinity of the site include adjacent residential uses to the east and 400 ft to the south, across Los Alisos Boulevard. Other sources of light on and adjacent to the project site include exterior lighting from adjacent properties, streetlights, and vehicle headlights.

The proposed project would introduce new sources of light to the project site that are typical of residential uses. However, these light sources would replace the lighting associated with the existing commercial building on site. Outdoor lighting proposed as part of the project would include wall-mounted lighting, pole-mounted streetlights, and bollard lighting along pathways. Accent trellis lights would also be incorporated in common areas. All outdoor lighting would be directed downward and shielded to minimize off-site spill. Additionally, the location of all exterior lighting would comply with lighting standards established in Chapter 9.25, Off-Street Parking Standards, of the City’s Municipal Code.

As a standard condition of project approval, the proposed project would be required to comply with lighting standards described in the Photometric Plan. Although the proposed project is not anticipated to incorporate design features that would result in excessive lighting or the generation of glare on the site, the Photometric Plan and any other lighting plans are subject to City review and approval as part of the site plan review process. Implementation of Regulatory Compliance
Measure RCM-AES-1 would ensure that impacts associated with new lighting would remain less than significant. No mitigation would be required.

**Regulatory Compliance Measure.** No mitigation is required; however, implementation of the following regulatory compliance measure would further reduce potential impacts related to glare and lighting.

**RCM-AES-1 Photometric Plan.** Prior to issuance of any building permits, the Project Applicant shall prepare a photometric plan for review and approval by the Director of the Community Development Department, or designee. The lighting plan shall be prepared by a qualified engineer and shall comply with applicable standards of the Mission Viejo Municipal Code.
Existing Condition - View from Los Alisos Boulevard at signalized intersection looking north.

Project Rendering - View from Los Alisos Boulevard at signalized intersection looking north.

FIGURE 4.1-2(a)

Mission Foothills
Residential Project
Key View 1
Existing Condition - View from Los Alisos Boulevard looking northeast.

Project Rendering - View from Los Alisos Boulevard looking northeast.

Mission Foothills
Residential Project
Key View 2
Existing Condition - View from Mission Foothills Marketplace driveway looking northeast.

Project Rendering - View from Mission Foothills Marketplace driveway looking northeast.
4.2 AGRICULTURAL RESOURCES

<table>
<thead>
<tr>
<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>
</table>

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 Dept. 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:

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

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

(c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code [PRC] Section 12220(g)), timberland (as defined by PRC Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?

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

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

4.2.1 Impact Analysis

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

No Impact. The project site is currently developed and located in an urbanized area predominantly developed with residential and commercial uses. In its existing condition, the project site contains a multi-tenant commercial building and associated parking lot. The proposed project includes the development of a new residential development that would replace the existing commercial building and parking lot on the site. The site is currently zoned as CH and RPD 30A on the City’s Zoning Map; it is not zoned for agricultural uses. The project site is in an urbanized area that has not been and is not currently used for agriculture, and is not designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance on maps prepared pursuant to the California Resources Agency’s Farmland Mapping and Monitoring Program.
The project site is designated as Urban and Built-Up Land, and as a result, the proposed project would not impact designated farmlands. No mitigation is required.

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

*No Impact.* As stated previously, the project site is developed and contains a multi-tenant commercial building and associated parking lot. The proposed project includes the construction of a new residential development that would replace the existing commercial building and parking lot on the site. The site is currently zoned as CH and RPD 30A on the City’s Zoning Map, and is not zoned for agricultural uses. Moreover, the site is not used for agricultural purposes, nor are there Williamson Act contracts in effect for the site. As a result, the proposed project will not conflict with existing zoning for agricultural uses or Williamson Act contracts. No mitigation is required.

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

*No Impact.* As stated previously, the project site is developed and contains a multi-tenant commercial building and associated parking lot. The proposed project includes the construction of a new residential development that would replace the existing commercial building and parking lot on the site. The site is currently zoned as CH and RPD 30A on the City’s Zoning Map. It is not designated or zoned as forest land or timberland, or for timberland production. As a result, the proposed project would not result in impacts on timberland resources. No mitigation is required.

**(d) Would the project result in the loss of forest land or conversion of forest land to non-forest use?**

*No Impact.* The project site is in an urban, built-out portion of Mission Viejo. There are no forest or timberland resources on or in the vicinity of the project site. The proposed project would not convert forest land to a non-forest use. Likewise, the project site would not contribute to environmental changes that could result in conversion of forest land to non-forest use. Therefore, the project would not result in impacts related to the loss of forest land or the conversion of forest land to non-forest uses. No mitigation is required.

**(e) Would the project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to nonagricultural use or conversion of forestland to non-forest use?**

*No Impact.* The project site is in an urban, built-out portion of Mission Viejo. The project site is developed with a multi-tenant commercial building and associated parking lot. It is currently not used for agricultural purposes and is not designed or zoned for forest land. The proposed project would not convert farmland to a nonagricultural use or convert forest land to a non-forest use. Likewise, the proposed project would not contribute to environmental changes that could result in conversion of farmland to a nonagricultural use or conversion of forest land to a non-forest use. Therefore, no impacts to farmland or forest land would occur as a result of project implementation, and no mitigation is required.
4.3 AIR QUALITY

<table>
<thead>
<tr>
<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>
</table>

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

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

(b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or State ambient air quality standard?

(c) Expose sensitive receptors to substantial pollutant concentrations?

(d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

The following section is based on the Air Quality and Greenhouse Gas Emissions Analysis (LSA 2019a), provided in Appendix A of this IS/MND. The California Emissions Estimators Model (CalEEMod) worksheets are also provided in Appendix A.

4.3.1 Impact Analysis

(a) Would the project conflict with or obstruct implementation of the applicable air quality plan?

**Less Than Significant Impact.** The proposed project site is located in Mission Viejo, which is part of the South Coast Air Basin (Basin) and is under the jurisdiction of the South Coast Air Quality Management District (SCAQMD). SCAQMD and the Southern California Association of Governments (SCAG) adopted the 2016 Air Quality Management Plan (2016 AQMP) in March 2017.

The main purpose of an Air Quality Management Plan (AQMP) is to describe air pollution control strategies to be taken by a city, county, or region classified as a nonattainment area. A nonattainment area is considered to have air quality worse than the National Ambient Air Quality Standards (NAAQS) and/or the California Ambient Air Quality Standards (CAAQS). The Basin is in nonattainment for the federal and State standards for ozone (O₃) and particulate matter less than 2.5 microns in diameter (PM₂.₅). In addition, the Basin is in nonattainment for the State particulate matter less than 10 microns in diameter (PM₁₀) standard, and is in attainment/maintenance for the federal PM₁₀, carbon monoxide (CO), and nitrogen dioxide (NO₂) standards.

Consistency with the 2016 AQMP for the Basin would be achieved if a project is consistent with the goals, objectives, and assumptions in the respective plan to achieve the federal and State air quality standards. Per the SCAQMD CEQA Air Quality Handbook (April 1993), there are two main indicators of a project’s consistency with the applicable AQMP: (1) whether the project would...
increase the frequency or severity of existing air quality violations or cause or contribute to new violations, or delay timely attainment of air quality standards or the interim emission reductions specified in the 2016 AQMP; and (2) whether the project would exceed the 2016 AQMP’s assumptions for 2030 or yearly increments based on the year of project build out and phasing. For the proposed project to be consistent with the AQMP, the pollutants emitted from the project should not exceed the SCAQMD daily threshold or cause a significant impact on air quality. Additionally, if feasible mitigation measures are implemented and are shown to reduce the impact level from significant to less than significant, a project may be deemed consistent with the AQMP.

SCAQMD CEQA Air Quality Handbook Criterion 1. With respect to the first criterion, the analysis presented below shows that criteria pollutants during construction and operation of the proposed project would be below the emissions thresholds established by SCAQMD and would not have the potential to cause or affect a violation of the ambient air quality standards (CAAQS and NAAQS).

The State CEQA Guidelines indicate that a significant impact would occur if the project would violate any air quality standard or contribute substantially to an existing or projected air quality violation. Specific criteria for determining whether the potential air quality impacts of a project are significant are set forth in SCAQMD’s CEQA Air Quality Handbook (1993). The criteria include emission thresholds, compliance with State and national air quality standards, and conformity with the existing State Implementation Plan or consistency with the current AQMP. A summary of the specific criteria contained in SCAQMD’s Air Quality Significance Thresholds (2015) is presented in Table 4.3.A.

Table 4.3.A: SCAQMD Significance Thresholds

<table>
<thead>
<tr>
<th>Air Pollutant</th>
<th>Construction Phase</th>
<th>Operational Phase</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOCs</td>
<td>75 lbs/day</td>
<td>55 lbs/day</td>
</tr>
<tr>
<td>CO</td>
<td>550 lbs/day</td>
<td>550 lbs/day</td>
</tr>
<tr>
<td>NOx</td>
<td>100 lbs/day</td>
<td>55 lbs/day</td>
</tr>
<tr>
<td>SOx</td>
<td>150 lbs/day</td>
<td>150 lbs/day</td>
</tr>
<tr>
<td>PM10</td>
<td>150 lbs/day</td>
<td>150 lbs/day</td>
</tr>
<tr>
<td>PM2.5</td>
<td>55 lbs/day</td>
<td>55 lbs/day</td>
</tr>
</tbody>
</table>

Source: SCAQMD. Air Quality Significance Thresholds (March 2015).
CO = carbon monoxide
lbs/day = pounds per day
NOx = nitrogen oxides
PM2.5 = particulate matter less than 2.5 microns in diameter
PM10 = particulate matter less than 10 microns in diameter
SCAQMD = South Coast Air Quality Management District
SOx = sulfur oxides
VOCs = volatile organic compounds

Projects in the Basin with emissions that exceed any of the mass daily emission thresholds above are considered significant by SCAQMD.

SCAQMD published its Final Localized Significance Threshold Methodology in July 2008, recommending that all air quality analyses include an assessment of both construction and
operational impacts on the air quality of nearby sensitive receptors from emissions of CO, NO\textsubscript{X}, PM\textsubscript{10}, and PM\textsubscript{2.5}. Localized significance thresholds (LSTs) represent the maximum emissions from a project that would not be expected to result in an exceedance of the NAAQS or CAAQS. LSTs are based on the ambient concentrations of that pollutant within the project’s Source Receptor Area (SRA) and the distance to the nearest sensitive receptor. For this project, the appropriate SRA is Saddleback Valley (SRA 19).

Based on the SCAQMD recommended methodology (SCAQMD 2018) and the construction equipment planned, no more than 5 ac\textsuperscript{1} would be disturbed on any single day; thus, the 5 ac LSTs have been used for construction emissions. On-site operational emissions would occur from stationary and mobile sources. On-site vehicle emissions are the largest source of emissions, and it is assumed that the on-site travel routes for the proposed project would occupy up to 5 ac of the surface area. Therefore, the 5 ac thresholds would also apply during project operations.

Sensitive receptors include residences, schools, hospitals, and similar uses that are sensitive to adverse air quality. The nearest residential land use is 100 ft (30 meters) to the west of the project site. Therefore, the following emissions thresholds for Saddleback Valley (SRA 19) apply during project construction and operation:

- **Construction LSTs:**
  - 195 pounds per day (lbs/day) of NO\textsubscript{X};
  - 1,864 lbs/day of CO;
  - 17 lbs/day of PM\textsubscript{10}; and
  - 8.6 lbs/day of PM\textsubscript{2.5}.

- **Operation LSTs:**
  - 195 lbs/day of NO\textsubscript{X};
  - 1,864 lbs/day of CO;
  - 4.2 lbs/day of PM\textsubscript{10}; and
  - 2.2 lbs/day of PM\textsubscript{2.5}.

*Construction Emissions.* Air quality impacts could occur during demolition and construction of the proposed project due to soil disturbance and equipment exhaust. Major sources of emissions during site preparation, demolition, site paving, and building construction include (1) exhaust emissions from construction vehicles, (2) equipment and fugitive dust generated by vehicles and equipment traveling over exposed surfaces, and (3) sand disturbances from compacting and cement paving. The following summarizes construction emissions and associated impacts of the proposed project.

Construction of the proposed project would include the following tasks: demolition, site preparation, grading, utility installation, paving, building construction (Model and Phases 1-5), architectural coating (Phases 1-5), and landscaping. It is anticipated that the following equipment

\textsuperscript{1} A maximum disturbance of 1.95 acres would occur during the grading phase from the use of one rubber-tired dozer and one grader for 8 hours per day.
will be utilized: concrete/industrial saws, excavators, rubber-tired bulldozers, tractors, backhoe loaders, graders, trenchers, rollers, air compressors, cranes, forklifts, generator sets, and welders. Fugitive dust emissions would be substantially reduced by compliance with SCAQMD Rules 402 and 403. Compliance with these rules, including measures such as on-site watering at least twice daily, was accounted for in the project emission estimates.

Table 4.3.B presents the peak daily construction emissions based on the CalEEMod emissions estimates. This table shows that construction equipment/vehicle emissions during the construction period would not exceed any of the SCAQMD daily emissions thresholds. Therefore, the air quality impacts would be less than significant. No mitigation would be required.

Table 4.3.B: Peak Daily Construction Emissions

<table>
<thead>
<tr>
<th>Construction Phase</th>
<th>Total Regional Pollutant Emissions (lbs/day)</th>
<th>VOC</th>
<th>NOx</th>
<th>CO</th>
<th>SO2</th>
<th>Fugitive PM10</th>
<th>Exhaust PM10</th>
<th>Fugitive PM2.5</th>
<th>Exhaust PM2.5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demolition</td>
<td></td>
<td>3.71</td>
<td>40.36</td>
<td>23.69</td>
<td>0.05</td>
<td>1.70</td>
<td>1.81</td>
<td>0.31</td>
<td>1.69</td>
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<tr>
<td>Site Preparation</td>
<td></td>
<td>4.42</td>
<td>45.63</td>
<td>22.71</td>
<td>0.04</td>
<td>7.25</td>
<td>2.39</td>
<td>3.93</td>
<td>2.20</td>
</tr>
<tr>
<td>Grading</td>
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<td>3.18</td>
<td>47.16</td>
<td>21.49</td>
<td>0.08</td>
<td>3.77</td>
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<td>1.65</td>
<td>1.36</td>
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<tr>
<td>Utility Installation</td>
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<td>0.69</td>
<td>6.27</td>
<td>5.12</td>
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<td>0.06</td>
<td>0.45</td>
<td>0.01</td>
<td>0.42</td>
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<tr>
<td>Paving</td>
<td></td>
<td>1.63</td>
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<td>15.20</td>
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<td>0.17</td>
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<tr>
<td>Model Building Construction</td>
<td></td>
<td>2.75</td>
<td>22.99</td>
<td>20.15</td>
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<td>0.89</td>
<td>1.31</td>
<td>0.24</td>
<td>1.23</td>
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<tr>
<td>Remaining Utility Installation</td>
<td></td>
<td>2.48</td>
<td>20.94</td>
<td>19.59</td>
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<td>0.89</td>
<td>1.13</td>
<td>0.24</td>
<td>1.06</td>
</tr>
<tr>
<td>Remaining Paving</td>
<td></td>
<td>0.69</td>
<td>6.27</td>
<td>5.12</td>
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<td>0.06</td>
<td>0.45</td>
<td>0.01</td>
<td>0.42</td>
</tr>
<tr>
<td>Architectural Coating</td>
<td></td>
<td>0.65</td>
<td>5.92</td>
<td>5.08</td>
<td>0.01</td>
<td>0.06</td>
<td>0.42</td>
<td>0.01</td>
<td>0.38</td>
</tr>
<tr>
<td>Production Building Construction (Phase 1)</td>
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<td>1.47</td>
<td>14.11</td>
<td>15.14</td>
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<tr>
<td>Architectural Coating (Phase 2)</td>
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<td>14.11</td>
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<td>0.75</td>
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<tr>
<td>Production Building Construction (Phase 2)</td>
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<td>1.47</td>
<td>14.11</td>
<td>15.14</td>
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<tr>
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<tr>
<td>Production Building Construction (Phase 3)</td>
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<td>2.29</td>
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<td>14.11</td>
<td>15.14</td>
<td>0.02</td>
<td>0.17</td>
<td>0.75</td>
<td>0.04</td>
<td>0.69</td>
</tr>
<tr>
<td>Production Building Construction (Phase 4)</td>
<td></td>
<td>1.47</td>
<td>14.11</td>
<td>15.14</td>
<td>0.02</td>
<td>0.17</td>
<td>0.75</td>
<td>0.04</td>
<td>0.69</td>
</tr>
<tr>
<td>Architectural Coating (Phase 5)</td>
<td></td>
<td>44.53</td>
<td>1.72</td>
<td>2.29</td>
<td>0.00</td>
<td>0.16</td>
<td>0.11</td>
<td>0.04</td>
<td>0.11</td>
</tr>
<tr>
<td>Peak Daily Emissions</td>
<td></td>
<td>54.44</td>
<td>85.99</td>
<td>80.63</td>
<td>0.16</td>
<td>26.17</td>
<td>14.48</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>SCAQMD Thresholds</td>
<td></td>
<td>75.00</td>
<td>100.00</td>
<td>550.00</td>
<td>150.00</td>
<td>150.00</td>
<td>55.00</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

Exceedance? No No No No No No No

Source: Compiled by LSA Associates, Inc. (March 2019).

Note: Column totals may not add due to rounding from the model results.

CO = carbon monoxide
Ibs/day = pounds per day
NOx = nitrogen oxides
PM2.5 = particulate matter less than 2.5 microns in size
PM10 = particulate matter less than 10 microns in size
SCAQMD = South Coast Air Quality Management District
SO2 = sulfur dioxide
VOC = volatile organic compounds

Table 4.3.C shows the maximum on-site construction emissions of CO, NOx, PM10, and PM2.5 during construction. As shown in Table 4.3.C, the proposed project would not exceed the LSTs for construction emissions. Therefore, criteria pollutants during construction of the proposed project would be below the emissions thresholds established by SCAQMD. No mitigation would be required.
Table 4.3.C: Short-Term Construction Localized Impacts Analysis

<table>
<thead>
<tr>
<th>Construction</th>
<th>NOx</th>
<th>CO</th>
<th>PM_{10}</th>
<th>PM_{2.5}</th>
</tr>
</thead>
<tbody>
<tr>
<td>On-Site Construction Emissions</td>
<td>46</td>
<td>22</td>
<td>9</td>
<td>6.1</td>
</tr>
<tr>
<td>Localized Significance Threshold</td>
<td>195</td>
<td>1,864</td>
<td>17</td>
<td>8.6</td>
</tr>
<tr>
<td>Exceedance?</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

Source: Compiled by LSA Associates, Inc. (March 2019).
Notes: On-site emissions represent maximum daily construction emissions.

Operational Emissions. Long-term air emissions impacts are associated with any change in permanent use of the project site by on-site stationary and off-site mobile sources that substantially increase emissions. Stationary-source emissions include emissions associated with electricity consumption and natural gas usage. Mobile-source emissions usually result from vehicle trips associated with a project.

Operational emissions associated with the proposed project (including energy use for appliances, landscaping equipment, use of consumer products, and motor vehicles) were calculated using CalEEMod and are shown in Table 4.3.D. Table 4.3.D lists the anticipated peak daily operational emissions associated with the proposed project.

Table 4.3.D: Peak Daily Operational Emissions (lbs/day)

<table>
<thead>
<tr>
<th>Source</th>
<th>VOC</th>
<th>NOx</th>
<th>CO</th>
<th>SOx</th>
<th>PM_{10}</th>
<th>PM_{2.5}</th>
</tr>
</thead>
<tbody>
<tr>
<td>Area</td>
<td>3.47</td>
<td>1.58</td>
<td>9.33</td>
<td>&lt;0.01</td>
<td>0.17</td>
<td>0.17</td>
</tr>
<tr>
<td>Energy</td>
<td>0.07</td>
<td>0.56</td>
<td>0.24</td>
<td>&lt;0.01</td>
<td>0.05</td>
<td>0.05</td>
</tr>
<tr>
<td>Mobile</td>
<td>1.36</td>
<td>5.59</td>
<td>18.68</td>
<td>0.07</td>
<td>6.30</td>
<td>1.72</td>
</tr>
<tr>
<td>Total Emissions</td>
<td>4.89</td>
<td>7.73</td>
<td>28.24</td>
<td>0.07</td>
<td>6.51</td>
<td>1.93</td>
</tr>
</tbody>
</table>

Source: Compiled by LSA Associates, Inc. (March 2019).
Note: Column totals may not add due to rounding from the model results.

Table 4.3.D shows that the peak daily operational emissions from the project would not exceed any operational emissions thresholds established by SCAQMD.

Table 4.3.E shows the calculated emissions for the proposed operational activities compared with the appropriate LSTs. By design, the localized impacts analysis only includes on-site sources; however, the CalEEMod outputs do not separate on-site and off-site emissions for mobile sources.
For a worst-case scenario assessment, the emissions shown in Table 4.3.E include all on-site project-related stationary sources and 5 percent of the project-related new mobile sources, which is an estimate of the amount of project-related new vehicle traffic that would occur on site. A total of 5 percent is considered conservative because the average trip lengths assumed are 16.6 mi for home to work, 8.4 mi for home to shopping, and 6.9 mi for other types of trips. The average on-site distance driven is unlikely to be even 1,000 ft, which is approximately 2 percent of the total miles traveled. Considering the total trip length included in CalEEMod, a 5 percent assumption is conservative.

### Table 4.3.E: Long-Term Operational Localized Impacts Analysis

<table>
<thead>
<tr>
<th>Emissions Sources</th>
<th>Pollutant Emissions (lbs/day)</th>
<th>NOₓ</th>
<th>CO</th>
<th>PM₁₀</th>
<th>PM₂.₅</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total On-Site Emissions</td>
<td>2</td>
<td>10</td>
<td>0.4</td>
<td>0.3</td>
<td></td>
</tr>
<tr>
<td>LST Thresholds</td>
<td>195</td>
<td>1,864</td>
<td>4.2</td>
<td>2.2</td>
<td></td>
</tr>
<tr>
<td>Exceedance?</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td></td>
</tr>
</tbody>
</table>

Source: Compiled by LSA Associates, Inc. (March 2019).

Notes: Column totals may not add due to rounding from the model results.

- SRA = Saddleback Valley Area, 5 acres, receptors at 30 meters.
- CO = carbon monoxide
- lbs/day = pounds per day
- LST = localized significance thresholds
- LST thresholds: 195, 1,864, 4.2, 2.2
- SRA = Source Receptor Area

Table 4.3.E shows that the operational emission rates would not exceed the LSTs for the residential homes located 100 ft (30 meters) to the west of the proposed project site. The proposed project would not cause any operational air quality impacts. Therefore, criteria pollutants during operation of the proposed project would be below the emissions thresholds established by SCAQMD. No mitigation would be required.

**SCAQMD CEQA Air Quality Handbook Criterion 2.** With respect to the second criterion for determining consistency with AQMP growth assumptions, the projections in the AQMP for achieving air quality goals are based on assumptions in SCAG’s 2016 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) regarding population, housing, and growth trends. According to the 2016 RTP/SCS, the forecasted population for the City of Mission Viejo in 2016 was approximately 94,500 persons. In 2020, the projected opening year of the proposed project, the City of Mission Viejo is anticipated to have a population of approximately 96,400 persons. Therefore, the City’s population is projected to grow by approximately 1,900 persons between 2016 and 2020. As discussed in Section 4.14, Population and Housing, the proposed project would result in an increase of 105 residential units, which would add approximately 300 new residents. Thus, residents of the proposed project would account for approximately 16 percent of the population growth forecasted by SCAG in Mission Viejo between 2016 and 2020, which would be consistent with projected growth trends in the 2016 RTP/SCS. Because similar projections form the basis of the 2016 AQMP, it can be concluded that the proposed project would be consistent with the projections in the AQMP. Additionally, the project site is currently designated Commercial Highway and Residential 30. Development of the project site would require a General Plan Amendment and zone change from Commercial Highway/Residential 30.
to Residential Planned Development 30. The changes in the land use designation would not alter the allowable residential densities, which range from 14 to 30 dwelling units per acre at the current project site. In addition, there are existing commercial uses on site that have already been included in the AQMP assumptions. As such, the proposed project is not anticipated to exceed the AQMP assumptions for the project site and is found to be consistent with the AQMP for the Basin. Based on the consistency analysis presented above, the proposed project would be consistent with the current regional AQMP and would not result in a new or worsening impact related to implementation of the AQMP.

**Summary.** In summary, because the project would not exceed SCAQMD emissions thresholds and is within growth projections for the City of Mission Viejo, the proposed project is consistent with the AQMP. Therefore, the impacts related to conflict with the AQMP would be less than significant, and no mitigation would be required.

(b) Would the project 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?

**Less Than Significant Impact.** The Basin is in nonattainment for the federal and State standards for O₃ and PM₂.₅. In addition, the Basin is in nonattainment for the State PM₁₀ standard and in attainment/maintenance for the federal PM₁₀, CO, and NO₂ standards. However, as discussed in Response 4.3(a) above, no exceedance of SCAQMD criteria pollutant emission thresholds would be anticipated for either construction or operation of the proposed project. The projected emissions of criteria pollutants as a result of the proposed project are expected to be below the emissions thresholds established for the region. Cumulative emissions are part of the emissions inventory included in the AQMP for the project area. Therefore, there would be no cumulatively considerable net increase of the criteria pollutants that are in nonattainment status in the Basin. No mitigation would be required.

(c) Would the project expose sensitive receptors to substantial pollutant concentrations?

**Less Than Significant Impact.** As described in Response 4.3(a), the proposed project would not significantly increase long-term emissions within the project area. Construction of the proposed project may expose nearby residential sensitive receptors to airborne particulates as well as a small quantity of construction equipment pollutants (i.e., usually diesel-fueled vehicles and equipment). However, construction contractors would be required to implement measures to reduce or eliminate emissions by following SCAQMD’s standard construction practices (Rules 402 and 403). Rule 402 requires implementation of dust suppression techniques to prevent fugitive dust from creating a nuisance off site. Rule 403 requires that fugitive dust be controlled with best available control measures so that the presence of such dust does not remain visible in the atmosphere beyond the property line of the emission source.

No mitigation would be required to reduce the project’s construction emissions to below SCAQMD’s significance thresholds. Therefore, sensitive receptors are not expected to be exposed to substantial pollutant concentrations during construction, and potential short-term impacts are considered less than significant. No mitigation would be required.
(d) *Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?*

**Less Than Significant Impact.** SCAQMD’s *CEQA Air Quality Handbook* (1993) identifies various secondary significance criteria related to odorous air contaminants. Substantial odor-generating sources include land uses such as agricultural activities, feedlots, wastewater treatment facilities, landfills, and heavy manufacturing uses. Pursuant to SCAQMD Rule 402, these sources shall include a quantitative assessment of potential odors and meteorological conditions. The project does not include any such uses or activities that would result in potentially significant odor impacts. Some objectionable odors may emanate from the operation of diesel-powered construction equipment during construction of the proposed project. However, these odors would be limited to the construction period and would disperse quickly; therefore, these odors would not be considered a significant impact.

Potential operational airborne odors could result from the trash receptacles at the residential buildings. However, the receptacles would have lids and would be emptied on a regular basis before potentially substantial odors would have a chance to develop. Therefore, there would be no significant adverse air quality impact with respect to objectionable odors that could affect a substantial number of people. No other emissions adversely affecting a substantial number of people would result from construction or operation of the proposed project. Therefore, no significant impacts related to other emissions, such as those leading to odors, adversely affecting a substantial number of people would result from the proposed project, and no mitigation would be required.
4.4 BIOLOGICAL RESOURCES

<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, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife (CDFW) or United States Fish and Wildlife Service (USFWS)?</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 natural community identified in local or regional plans, policies, regulations or by the CDFW or USFWS?</td>
<td>□</td>
<td>□</td>
<td>☒</td>
<td>☐</td>
</tr>
<tr>
<td>(c) Have a substantial adverse effect on State or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological 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 migratory fish or wildlife species or with established native resident or 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 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 (HCP), Natural Community Conservation Plan (NCCP), or other approved local, regional, or State habitat conservation plan?</td>
<td>□</td>
<td>□</td>
<td>☒</td>
<td>☐</td>
</tr>
</tbody>
</table>

4.4.1 Impact Analysis

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

Less Than Significant Impact. The project site is currently developed with a multi-tenant commercial building and associated parking lot within an urbanized portion of Mission Viejo. In its existing condition, the project site contains a variety of trees and ornamental landscaping throughout the surface parking lot and along the northern and western boundaries of the site. As part of the project, existing trees around the perimeter of the project site and throughout the existing parking lot would be removed and replaced with a variety of trees and ornamental vegetation. Due to the lack of suitable habitat, no special-status species are anticipated on the project site. The removal of on-site vegetation and trees is not expected to have a significant adverse effect on candidate, sensitive, or special-status species, as defined by the California Department of Fish and Wildlife.
Department of Fish and Wildlife (CDFW) or the United States Fish and Wildlife Service (USFWS). Therefore, the proposed project would not impact any sensitive or special-status species, and no mitigation is required. In addition, there are no known sensitive species or habitats on site as identified in local/regional plans, policies, or regulations, or by the CDFW or USFWS. Further, conversion of the project site from a commercial to a residential use would result in the addition of a residential development, amenities, open areas, and ornamental landscaping that could potentially support limited levels of wildlife. Therefore, impacts to such species are considered less than significant. No mitigation would be required.

(b) Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the CDFW or USFWS?

**No Impact.** The project site is currently developed with a multi-tenant commercial building and associated parking lot within an urbanized portion of Mission Viejo. According to the National Wetlands Inventory managed by the USFWS, the project site does not contain riparian habitat (USFWS 2018). There are no riparian habitat or other sensitive natural communities as identified in local or regional plans, policies, or regulations, or by the CDFW or USFWS. Therefore, development of the proposed project is not anticipated to have an impact on any riparian habitat or other sensitive natural community. No mitigation would be required.

(c) Would the project have a substantial adverse effect on State or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

**No Impact.** As stated previously, the project site is within an urbanized portion of Mission Viejo. According to the National Wetlands Inventory managed by the USFWS, the project site does not contain federally protected wetlands (USFWS 2018).

The State Water Resources Control Board (SWRCB) is currently proposing a *State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State* (State Wetlands Procedures, formerly known as the *State Wetland and Riparian Area Protection Policy*) (SWRCB 2019). The State Wetlands Procedures consist of four main components: (1) a wetland definition; (2) a framework for determining if a feature that meets the wetland definition is a water of the State; (3) wetland delineation procedures; and (4) procedures for the submittal, review and approval of applications for Water Quality Certifications and Waste Discharge Requirements for dredge or fill activities. In an effort to catalog the State’s water resources, the California Aquatic Resources Inventory (CARI) is being developed and includes a dataset of wetlands, streams, and riparian areas maintained by the State. A review of the existing aquatic resources cataloged in the CARI show that there are no aquatic resources on the project site or immediate vicinity. There are no wetlands protected by the State on or near the project site. As such, the project would not impact State-protected wetlands as defined by the State Wetlands Procedures.

The project site does not contain any federally protected wetlands as defined by Section 404 of the Clean Water Act, nor does it contain State-protected wetlands as defined by the State.
Wetlands Procedures. Since it has been fully developed with commercial uses, the property is devoid of natural habitat and sensitive species. Therefore, development of the project site would have no impact on State or federally protected wetlands. No mitigation would be required.

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

Less Than Significant Impact. As stated previously, the project site is currently developed with a multi-tenant commercial building and associated parking lot within an urbanized portion of Mission Viejo. In its existing condition, the project site contains a variety of trees and ornamental landscaping throughout the surface parking lot and along the northern and western boundaries of the site. Because urban development, including SR-241, surrounds the site, the proposed project site does not function as a wildlife movement corridor. Any species that may inhabit the project site are either able to fly in or navigate on the ground through long stretches of urban development. Further, no portion of the project site contains an open body of water that serves as natural habitat in which fish could exist. Therefore, the project site does not contain any native resident or migratory fish, wildlife species, or wildlife corridors.

The project site is within the study area of the Southern Region of the County of Orange’s (County) Natural Community Conservation Plan/Habitat Conservation Plan (NCCP/HCP) (2006). The County’s NCCP/HCP Southern Subregion Wildlife Corridors and Habitat Linkages Map shows that the project site is not within an established wildlife corridor or habitat linkage. Therefore, the project would not interfere substantially with the movement of any native resident or migratory fish or wildlife species.

In the existing condition, trees are located on the project site; these trees could provide habitat for nesting migratory birds. Many of these trees would be removed during construction. Therefore, the proposed project has the potential to impact active bird nests if vegetation and trees are removed during the nesting season. Nesting birds are protected under the federal Migratory Bird Treaty Act (MBTA) (United States Code Title 33, Section 703 et seq.; see also Code of Federal Regulations Title 50, Part 10) and Section 3503 of the California Fish and Game Code. Therefore, implementation of the proposed project would be subject to the provisions of the MBTA, which prohibits disturbing or destroying active nests. Project implementation must be accomplished in a manner that avoids impacts to active nests during the breeding season. As a standard condition of project approval, if project construction occurs between February 1 and September 15, a qualified biologist would conduct a nesting bird survey prior to ground- and/or vegetation-disturbing activities to confirm the absence of nesting birds. Avoidance of impacts can be accomplished through a variety of means, including establishing suitable buffers around any active nests. Project compliance with Regulatory Compliance Measure RCM-BIO-1, which requires compliance with provisions of the MBTA, would ensure impacts to nesting birds would be less than significant, and no mitigation would be required.

Regulatory Compliance Measure. No mitigation is required. However, Regulatory Compliance Measure RCM-BIO-1 would be implemented to ensure project compliance with the MBTA.
RCM-BIO-1  

**Migratory Bird Treaty Act.** In the event that vegetation and tree removal should occur between February 1 and September 15, the Project Applicant (or its contractor) shall retain a qualified biologist to conduct a nesting bird survey no more than 3 days prior to commencement of construction activities. The nesting survey shall include the project site and areas immediately adjacent to the site that could potentially be affected by project-related construction activities such as noise, human activity, and dust. If active nesting of birds is observed within 100 feet of the designated construction area prior to construction, the biologist shall establish suitable buffers around the active nests (e.g., as much as 500 feet for raptors and 300 feet for nonraptors [subject to the recommendations of the qualified biologist]), and the buffer areas shall be avoided until the nests are no longer occupied and the juvenile birds can survive independently from the nests. Prior to commencement of grading activities and issuance of any building permits, the Director of the Community Development Department, or designee, shall verify that all project grading and construction plans include specific notes regarding the requirements of the Migratory Bird Treaty Act (MBTA), that preconstruction surveys have been completed and the results reviewed by staff, and that the appropriate buffers (if needed) are noted on the plans and established in the field with orange snow fencing.

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

**Less Than Significant Impact.** Chapter 13.40 of the City’s Municipal Code regulates planting, maintenance, protection, and removal of trees and shrubs on City-owned property. As part of the project, existing trees around the perimeter of the project site and throughout the existing parking lot would be removed and replaced with a variety of trees and ornamental landscaping. Since no portion of the project site is owned by the City, implementation of the project would not result in the removal of protected trees and vegetation.

The City’s Conservation/Open Space Element (2013d) includes policies protecting biological and natural resources within Mission Viejo. According to the Conservation/Open Space Element, the coast live oak (*Quercus agrifolia*) is the City’s official tree, and as such, removal or destruction of such trees shall be regulated by the City. No coast live oak trees would be removed as part of the project.

The proposed project would include the removal of a number of ornamental trees and shrubs within the existing project site. However, none of the existing trees and shrubs on site have been determined to be significant biological resources, as they are ornamental. Implementation of the proposed project would not conflict with any local policies or ordinances protecting biological resources (e.g., a tree preservation policy or ordinance). Therefore, impacts would be less than significant and no mitigation would be required.
(f) Would the project conflict with the provisions of an adopted Habitat Conservation Plan (HCP), Natural Community Conservation Plan (NCCP), or other approved local, regional, or State habitat conservation plan?

No Impact. As stated previously, the project site is currently developed with a multi-tenant commercial building and associated parking lot within an urbanized portion of Mission Viejo. The project site is within the study area of the Southern Region of the County’s NCCP/HCP (2006). However, construction of the project, which would be located on a lot with previously developed commercial uses, would not impact or conflict with provisions in the adopted plan. As such, implementation of the proposed project would not conflict with the provisions of an HCP, NCCP, or other approved local, regional, or State HCP, and no mitigation would be required.
### 4.5 CULTURAL RESOURCES

<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) Cause a substantial adverse change in the significance of a historical resource pursuant to Section 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 Section 15064.5?</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>☑</td>
</tr>
<tr>
<td>(c) Disturb any human remains, including those interred outside of formal cemeteries?</td>
<td>✗</td>
<td>✗</td>
<td>☑</td>
<td>✗</td>
</tr>
</tbody>
</table>

#### 4.5.1 Impact Analysis

(a) **Would the project cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?**

No Impact. CEQA defines a “historical resource” as a resource that meets one or more of the following criteria:

1. Is listed in, or determined eligible for listing in, the California Register of Historical Resources (California Register);
2. Is listed in a local register of historical resources as defined in Public Resources Code (PRC) Section 5020.1(k);
3. Is identified as significant in a historical resource survey meeting the requirements of PRC Section 5024.1(g); or
4. Is determined to be a historical resource by a project’s Lead Agency (PRC Section 21084.1 and State CEQA Guidelines Section 15064.5[a]).

Implementation of the proposed project would not cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5 of the State CEQA Guidelines, as there are no eligible resources on site.

In its existing setting, the project site is developed with a commercial building (built in 1996) and associated parking lots. A records search for the project site was conducted at the South Central Coastal Information Center (SCCIC) of the California Historical Resources Information System (CHRIS), located at California State University, Fullerton, on November 28, 2018 (refer to Appendix B of this IS/MND). The SCCIC houses the pertinent archaeological and historic site and survey information necessary to determine whether cultural resources are known to exist within the project area. The records search included a review of all recorded historic properties within a 0.25 mi radius of the project site, as well as a review of known cultural resource survey and excavation reports. According to the results from the records search, no previously recorded historic
properties are within the project site. Further, due to the relatively young age of the building, it is not likely that it would be considered a historic property. As a result, the project will not cause a substantial change in the significance of a historical resource as defined in State CEQA Guidelines Section 15064.5. No mitigation would be required.

(b) Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?

**No Impact.** The soils on the project site are nonnative and have been disturbed previously during excavation and construction of the site’s existing commercial use. According to the results from the SCCIC records search, no previously recorded cultural resources are within the project site. Three previously recorded resources are within 0.25 mi of the project site, all of which are prehistoric archaeological sites. The project site has been included in three previous cultural resources studies. Of these three studies, two were survey assessments and one was archaeological monitoring. The entire current project site was included in the archaeological monitoring report for the existing commercial development (Macko and Hurd 1991), indicating that no cultural resources were encountered during the previous grading of the project site. Therefore, the project will not cause a substantial change in the significance of an archaeological resource as defined in State CEQA Guidelines Section 15064.5. No mitigation would be required.

(c) Would the project disturb any human remains, including those interred outside of formal cemeteries?

**Less Than Significant Impact.** There are no known human remains interred on the project site. Given the project’s site prior use as a commercial complex, it is unlikely that any future development of the site would result in disturbance of human remains. While the potential to encounter human remains on the project site is low, buried and undiscovered human remains may be present below the ground surface. Disturbing human remains could violate the State’s Health and Safety Code, as well as destroy the resource. In the unlikely event that human remains are encountered during ground-disturbing activities, the proper authorities would be notified, and standard procedures for the respectful handling of the human remains would be adhered to in compliance with State Health and Safety Code Section 7050.5 and PRC Section 5097.98, which require that no further disturbance occur in the event of a discovery or recognition of any human remains on site and that the County Coroner be notified immediately (refer to Regulatory Compliance Measure RCM-CUL-1). Upon completion of the assessment, consulting archaeologists would prepare a report documenting the methods and results regarding the treatment of the remains. Therefore, implementation of RCM-CUL-1, which requires compliance with Section 7050.5 of the Health and Safety Code and Section 5097.98 of the PRC, would ensure that potential impacts related to unknown human remains would be less than significant. No mitigation would be required.

**Regulatory Compliance Measure.** No mitigation is required. However, Regulatory Compliance Measure RCM-CUL-1 would be implemented to ensure project compliance with Section 7050.5 of the Health and Safety Code and Section 5097.98 of the Public Resources Code.
RCM-CUL-1  **Human Remains.** In the event that human remains are encountered on the Project site, work within 50 ft of the discovery shall cease and the County Coroner shall be notified immediately consistent with the requirements of California Code of Regulations (CCR) Section 15064.5(e). State Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to Public Resources Code (PRC) Section 5097.98. Prior to the issuance of grading permits, the City Community and Planning, Building, and Code Enforcement Department Director, or designee, shall verify that all grading plans specify the requirements of CCR Section 15064.5(e), State Health and Safety Code Section 7050.5, and PRC Section 5097.98, as stated above.
4.6 ENERGY

<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)</td>
<td>Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation?</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
</tr>
<tr>
<td>(b)</td>
<td>Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
</tr>
</tbody>
</table>

4.6.1 Impact Analysis

(a) Would the project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation?

Less than Significant Impact.

Construction. The anticipated construction schedule assumes that the project would be built over 26 months. The project construction would involve demolition, site preparation and grading, utility installation, paving, and building construction and architectural coating (Phases 1-5). In total, the project would require the import of approximately 10,000 cubic yards of soil.

Energy would be consumed during construction and operation of the proposed project. Construction would require energy for the manufacture and transportation of building materials, preparation of the site for demolition and grading activities, utility installation, paving, and building construction and architectural coating. Petroleum fuels (e.g., diesel and gasoline) would be the primary sources of energy for these activities. However, energy usage on the project site during construction would be temporary in nature. Energy usage during construction of the project would only utilize the energy required and would not be wasteful, inefficient, or unnecessary. Therefore, construction energy impacts would be less than significant, and no mitigation would be required.

Operation. The project includes the development of a new residential community that would replace the existing 99,500 sf commercial building and a portion of the parking lot within the existing commercial complex. In total, the project would construct 192,116 sf of residential building area.

During project operation, electricity would be the main form of energy consumed on the site. Electricity would be used for building heating and cooling, lighting, and water heating. Table 4.6.A compares the energy use of the proposed project with the existing energy use on the site. It should be noted that the estimated electricity and gasoline use for the existing uses is only for the portion of the existing commercial building that is currently occupied; a majority of the building is not occupied.
Table 4.6.A: Estimated Annual Energy Use of Existing and Proposed Project

<table>
<thead>
<tr>
<th>Land Use</th>
<th>Electricity Use (kWh/year)</th>
<th>Gasoline (gallons/year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Existing Development</td>
<td></td>
<td></td>
</tr>
<tr>
<td>99,500 sf Commercial Use</td>
<td>129,272</td>
<td>34,473</td>
</tr>
<tr>
<td>Proposed Project</td>
<td></td>
<td></td>
</tr>
<tr>
<td>192,116 sf Residential Use</td>
<td>655,896</td>
<td>133,872</td>
</tr>
<tr>
<td>Total (Net)</td>
<td>526,624</td>
<td>99,399</td>
</tr>
</tbody>
</table>


The electricity demand on site is generated by the existing commercial use (approximately 99,500 sf). The estimated annual energy use of the existing development, as shown in Table 4.6.A, is based on energy demand factors in the California Emissions Estimator Model (CalEEMod). As illustrated by Table 4.6.A, existing uses on the site generate 129,272 kWh of electricity per year. Based on the U.S. EPA’s 2015 average fuel economy estimate of 22 mpg¹ and the existing VMT of 758,404 VMT per year², the existing development consumes 34,473 gallons of gasoline per year.³

As shown in Table 4.6.A, proposed uses on the site would generate a total of 655,896 kWh of electricity per year. The project would generate a net increase of 526,624 kWh of electricity on an annual basis. In addition, the project would result in energy usage associated with gasoline to fuel project-related trips. As discussed further in Section 4.17, Transportation/Traffic, the proposed project would result in an increase of 435 net new daily trips and would have an annual VMT of 2,945,175. Using the 2015 fuel economy estimate of 22 mpg, the proposed project would result in the consumption of approximately 133,872 gallons of gasoline per year⁴ (a 99,399-gallon increase over existing conditions).

The State of California provides a minimum standard for building design and construction standards through Title 24 of the California Code of Regulations (CCR), known as the California Building Code (CBC). The CBC is updated every 3 years, and the current 2016 CBC went into effect in January 2017. Compliance with Title 24 is mandatory at the time new building permits are issued by local governments. The California Building Standards Commission (CBSC) adopted Part 11 of the Title 24 Building Energy Efficiency Standards (also referred to as the California Green Building Standards Code, or CALGreen) in 2010 as part of the State’s efforts to reduce GHG emissions and reducing energy consumption from residential and nonresidential buildings. CALGreen code covers the following five categories: (1) planning and design, (2) energy efficiency,

² California Emissions Estimator Model (CalEEMod). Compiled by LSA (March 2019).
³ 758,404 VMT per year/22 mpg = 34,472.91 gallons of gasoline per year
⁴ 2,945,175 VMT per year/22 mpg = 133,871.59 gallons of gasoline per year
(3) water efficiency and conservation, (4) material conservation and resource efficiency, and (5) indoor environmental quality. The City has adopted both the CBC and CALGreen Code as part of Chapter 8.02, Building and Housing Codes, of the Municipal Code. The projected energy use of the project is representative of a worst-case scenario because the estimates do not account for energy efficiency measures that would be incorporated into the proposed project. The project would comply with the CALGreen Code requirements and Title 24 efficiency standards, which would further improve the energy efficiency of the project. In addition, as stated above, the existing energy use represents only the portion of the existing commercial building that is currently occupied.

Electricity is provided in the State through a complex grid of power plants and transmission lines. In 2017, California’s in-state electric generation totaled 206,336 gigawatt-hours (GWh); the State’s total system electric generation, which includes imported electricity, totaled 290,039 GWh.\(^1\) Population growth is the primary source of increased energy consumption in the State; due to population projections, annual electricity use is anticipated to increase by approximately 1 percent per year through 2027.\(^2\) The project’s net electricity usage would total less than 0.01 percent\(^3\) of electricity generated in the State in 2017, which would not represent a substantial demand on available electricity resources.

The average fuel economy for light-duty vehicles (autos, pickups, vans, and SUVs) in the United States has steadily increased from about 14.9 mpg in 1980 to 22.0 mpg in 2015.\(^4\) Federal fuel economy standards have changed substantially since the Energy Independence and Security Act was passed in 2007, which originally mandated a national fuel economy standard of 35 mpg by the year 2020, and would be applicable to cars and light trucks of Model Years 2011 through 2020.\(^5\) In 2012, the federal government raised the fuel economy standard to 54.5 mpg for cars and light-duty trucks by Model Year 2025.\(^6\)

As stated previously, implementation of the proposed project would increase the project-related annual gasoline demand by 99,399 gallons. However, new automobiles purchased by visitors driving to and from the project site would be subject to fuel economy and efficiency standards

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\(^3\) Calculation: 0.53 GWh (proposed project) / 206,336 GWh (generated in State in 2017) = < 0.01 percent.


applied throughout the State. As such, the fuel efficiency of vehicles associated with the project site would increase throughout the life of the project. Therefore, implementation of the proposed project would not result in a substantial increase in transportation-related energy uses.

In summary, construction and operation of the proposed project would not result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources. Consumption of energy resources as a result of implementation of the proposed project would be comparable to other residential developments in the City. Impacts would be less than significant, and no mitigation would be required.

(b) Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

Less than Significant Impact. Refer to Response 4.6(a), above. As previously stated, the project would be required to comply with CALGreen Code, which includes provisions related to insulation and design aimed at minimizing energy consumption. Therefore, the proposed project would be consistent with applicable plans related to renewable energy and energy efficiency. Impacts would be less than significant, and no mitigation would be required.
4.7 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) Directly or indirectly cause 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 direct and indirect 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>
<tr>
<td>(f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?</td>
<td>☐</td>
<td>☒</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

4.7.1 Impact Analysis

(a) Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:

(i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.

No Impact. The City, like the rest of Southern California, is located in a seismically active area. According to the City’s General Plan Public Safety Element (2009b), there are no faults within Mission Viejo itself. The nearest significant fault zones in the vicinity of Mission Viejo are the Newport-Inglewood Fault Zone approximately 12 mi to the west and the Elsinore Fault approximately 10 mi to the northeast. However, the project site is not within the boundaries...
of an active “Earthquake Fault Zone” as defined by the State of California in the Alquist-Priolo Earthquake Fault Zoning Act, and there are no known active faults crossing the site (California DOC 2018b). Therefore, no direct or indirect impacts related to the rupture of a known earthquake fault, as depicted on the most recent Alquist-Priolo Earthquake Fault Zoning Map, are anticipated to occur as a result of project implementation. No mitigation would be required.

(ii) **Strong seismic ground shaking?**

**Less Than Significant with Mitigation Incorporated.** As stated in Response 4.7(a)(i), the project site does not fall within a designated Alquist-Priolo Earthquake Fault Zone. Although the project site is not located within an Earthquake Fault Zone, the region has previously experienced seismic activity associated with the Newport-Inglewood fault and Elsinore fault systems, which are 12 mi and 15 mi from the City’s boundary, respectively. Because of the proximity of these faults, there is a potential for seismic shaking generated from active faults to occur during the life of the project. In the event a major earthquake were to occur, the result could range from moderate to severe ground shaking. As with most areas in Southern California, damage to development and infrastructure associated with the surrounding areas could be expected as a result of ground shaking.

Ground shaking generated by fault movement is considered a potentially significant impact that may affect the proposed project. Prior to approval of the project, a Geotechnical Report will be prepared outlining any potential project impacts related to seismic ground shaking and necessary mitigation measures. The project would be required to comply with the most current California Building Code (CBC) and City Building Code, which stipulate appropriate seismic design provisions that shall be implemented with project design and construction. As outlined in Mitigation Measure GEO-1, the proposed project would be required to prepare a project site-specific Geotechnical Report, which would make specific recommendations regarding the design of structures and suitability of site conditions for development. Adherence to recommendations in the Final Geotechnical Report would reduce potential direct and indirect project impacts related to seismic ground shaking to a less than significant level.

**Mitigation Measure.** The following mitigation measure is required to reduce potential impacts related to geology and soils to a less than significant level:

**GEO-1 Preparation of and Compliance with the Recommendations in the Final Geotechnical Report.** Prior to issuance of grading permits, the Project Applicant shall submit a Final Geotechnical Investigation prepared for the project site to the Director of the Mission Viejo Community Development Department, or designee, for review and approval. All grading operations and construction shall be conducted in conformance with the recommendations included in the Final Geotechnical Report. Grading plan review shall be conducted by the Director of the Mission Viejo Community Development Department, or designee, prior to the start of grading to verify that requirements specified in the Final Geotechnical Report have been
appropriately incorporated into final project design. Design, grading, and construction shall be performed in accordance with the requirements of the City of Mission Viejo Building Code and the California Building Code (CBC) applicable at the time of grading, appropriate local grading regulations, and the recommendations of the geotechnical consultant as summarized in the Final Geotechnical Investigation for the project.

(iii) Seismic-related ground failure, including liquefaction?

**Less Than Significant with Mitigation Incorporated.** Liquefaction most commonly occurs when three conditions are present simultaneously: (1) high groundwater; (2) relatively loose, cohesionless (sandy) soil; and (3) earthquake-generated seismic waves. The presence of these conditions has the potential to result in a loss of shear strength and ground settlement, causing the soil to behave as a fluid for a short period of time.

According to the City’s General Plan Public Safety Element (2009b) and the California Department of Conservation (DOC) Regulatory Maps (California DOC 2018b), the project site is not within a liquefaction zone. The liquefaction zone, as defined by the California DOC Earthquake Zones of Required Investigation (EZRIM) for the Lake Forest Quadrangle, shows a liquefaction zone approximately 100 ft northwest of the project site, which extends from the Upper Oso Reservoir. However, because the project site is not within a liquefaction zone, there is low potential for seismic-related liquefaction or settlement on the site and liquefaction is not considered a concern for the proposed project. Further, as conditioned in Mitigation Measure GEO-1, the project would be required to prepare a project site-specific Final Geotechnical Report, which would make specific recommendations regarding the suitability of site conditions for development. Adherence to recommendations in the Final Geotechnical Report would reduce potential direct and indirect project impacts related to liquefaction to a less than significant level. No additional mitigation would be required.

(iv) Landslides?

**Less Than Significant with Mitigation Incorporated.** Landslides are most common where slopes are steep, soils are weak, and groundwater is present. Seismically induced landslides and other slope failures are common occurrences during or soon after earthquakes in areas with significant ground slopes. The project site is relatively flat, with no slopes present on site. According to the City’s General Plan Public Safety Element (2009) and the California DOC Regulatory Maps (California DOC 2018b), the project site is not within an earthquake-induced landslide zone. Further, as conditioned in Mitigation Measure GEO-1, the project would be required to comply with any recommendations outlined in the required project-specific Final Geotechnical Report, which would reduce potential direct and indirect project impacts related to landslides to a less than significant level. Therefore, with compliance with the recommendations in the Final Geotechnical Report, the proposed project would not expose people or structures to substantial adverse effects involving seismically induced landslides. No additional mitigation would be required.
(b) Would the project result in substantial soil erosion or the loss of topsoil?

**Less Than Significant Impact.** In its existing condition, the project site is developed with commercial buildings, paved asphalt parking lots, and ornamental vegetation. The project would involve the demolition of the existing commercial building and construction of a 105-unit residential development on the project site. During construction activities, soil would be exposed and there would be an increased potential for soil erosion compared to existing conditions. Additionally, during a storm event, soil erosion could occur at an accelerated rate. The increased erosion potential could result in short-term water quality impacts as identified in Section 4.10, Hydrology and Water Quality.

As discussed in further detail in Section 4.10, Hydrology and Water Quality, the proposed project would decrease the impervious surface area on the project site compared to existing conditions. This would not substantially change the volume of stormwater runoff generated from the project site. However, since the project site is relatively flat, soil erosion can be controlled via implementation of standard erosion control practices. Because the project would not substantially change the volume of runoff from the project site and the project site surfaces would not be prone to erosion, the proposed project would not result in substantial soil erosion or the loss of topsoil. Furthermore, the exposure of soils during construction would be short-term and subject to requirements established by the National Discharge Elimination Systems (NPDES). Once developed, the project’s implementation would not increase the volume of runoff from the project site because the proposed project would include an increase in landscaped pervious surfaces intended to capture stormwater runoff. Therefore, direct and indirect impacts related to erosion and loss of topsoil would be less than significant and no mitigation would be required.

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

**Less Than Significant with Mitigation Incorporated.** Landslides and other forms of mass wasting, including mud flows, debris flows, and soil slips, occur as soil moves downslope under the influence of gravity. Landslides are frequently triggered by intense rainfall or seismic shaking. As discussed in Response 4.7(a)(iv), there are no landslide zones close to or within the boundaries of the project site. The project site is relatively flat; therefore, slope failure is not a concern for the proposed project. Further, as a standard condition of project approval, the project would be required to comply with any recommendations outlined in the required project-specific Geotechnical Report, which would reduce potential project impacts related to landslides to a less than significant level.

As discussed in Response 4.7(a)(iii), there is low potential for liquefaction on the project site and liquefaction is not considered a concern for the proposed project. Lateral spreading involves lateral movement of earth materials due to ground shaking. Lateral spreading is generally caused by liquefaction of soils with gentle slopes. Since the project site is relatively flat and the potential for liquefaction is not considered a concern for the proposed project, the risk of liquefaction and lateral spreading is considered less than significant. Further, as a standard condition of project approval, the project would be required to comply with any recommendations outlined in the
required project-specific Geotechnical Report, which would reduce potential project impacts related to liquefaction and lateral spreading to a less than significant level.

Differential settlement or subsidence could occur if buildings or other improvements are built on low-strength foundation materials (including imported fill) or if improvements straddle the boundary between different types of subsurface materials (e.g., a boundary between native material and fill). Although differential settlement generally occurs slowly enough that its effects are not dangerous to inhabitants, it can cause building damage over time. Soils susceptible to seismically induced settlement typically include loose, granular materials. As specified in Mitigation Measure GEO-1, project design and implementation would comply with the design recommendations of the required project-specific Final Geotechnical Report, which would ensure impacts related to settlement and subsidence would be less than significant.

In summary, with implementation of the recommendations in the project’s Final Geotechnical Report, potentially significant impacts related to unstable soils or geologic units that would become unstable as a result of the project, resulting in on- or off-site landslides, lateral spreading, subsidence, liquefaction, or collapse, would be reduced to a less than significant level. Mitigation would be required.

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

Less Than Significant with Mitigation Incorporated. Expansive soils are characterized by their ability to undergo substantial volume changes (shrink or swell) due to variations in moisture content as a result of precipitation, landscape irrigation, utility leakage, roof drainage, perched groundwater, drought, or other factors. Expansive soils contain types of clay minerals that occupy considerably more volume when they are wet or hydrated than when they are dry or dehydrated. Volume changes associated with changes in the moisture content of near-surface expansive soils can cause uplift or heave of the ground when they become wet or, less commonly, cause settlement when they dry out.

The project would import approximately 10,000 cy of nonnative soils to the site. The imported soils would be compacted as recommended by the project engineer and in accordance with the CBC and the City’s Building Code. As required by Mitigation Measure GEO-1, project design and implementation would comply with the design recommendations of the required project-specific Final Geotechnical Report, which would ensure impacts related to expansive soils would be reduced to less than significant levels. Therefore, with implementation of recommendations in the project’s Final Geotechnical Report, potentially direct and indirect significant impacts related to expansive soils on the project site would be reduced to a less than significant level. No additional mitigation would be required.
(e) Would the project 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?

No Impact. The project would not use septic tanks or alternative methods for disposal of wastewater into subsurface soils. Further, the entire City is currently served by an existing sewer system; therefore, there is no need for septic tanks or other alternative wastewater systems. The proposed project would connect to existing public wastewater infrastructure. Therefore, the project would not result in any impacts related to septic tanks or alternative wastewater disposal methods. No mitigation would be required.

(f) Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Less Than Significant with Mitigation Incorporated. Project plans, geologic maps of the project site, and relevant geological and paleontological literature were reviewed to determine which geologic units are present within the project site and whether fossils have been recovered within the project site or from those or similar geologic units elsewhere in the region. In addition, a search for known fossil localities was conducted through the Natural History Museum of Los Angeles County (LACM) on November 16, 2018 (refer to Appendix C of this IS/MND). The fossil locality search was conducted to determine the status and extent of previously recorded paleontological resources within and surrounding the project site.

No paleontological resources or unique geologic features are known to exist within the project site. The site is underlain by late Holocene Very Young Landslide Deposits, Holocene to late Pleistocene Young Axial Channel Deposits, late to middle Miocene Monterey Formation, and middle Miocene deposits of the Topanga Group. The Very Young Landslide Deposits and the Young Axial Channel Deposits above a depth of 10 ft have low paleontological sensitivity. The Young Axial Channel Deposits below a depth of 10 ft, the Monterey Formation, and the Topanga Group have high paleontological sensitivity. However, the project site is within a previously disturbed area and will have ground disturbance that extends to a maximum depth of 10 ft below ground surface (bgs) on a fill slope. Therefore, the project is unlikely to impact scientifically important paleontological resources. If excavation depths extend below the anticipated 10 ft, or if paleontologically sensitive native sediments are encountered during excavation, a paleontologist would be retained to develop a Paleontological Resource Impact Mitigation Program (PRIMP) for this project. As outlined in Mitigation Measure GEO-2, recommendations of a PRIMP may include the following actions: paleontological monitoring; collection of observed resources; preservation, stabilization, and identification of collected resources; curation of resources into a museum repository; and preparation of a monitoring report of findings. Should undiscovered paleontological resources be found during project construction, the project would comply with recommendations outlined in the PRIMP. Therefore, with implementation of Mitigation Measure GEO-2, impacts to paleontological resources would be less than significant.

Mitigation Measure. The following mitigation measure is required to reduce potential impacts related to geology and soils to a less than significant level:
Preparation of Paleontological Resource Impact Mitigation Program. If excavation depths extend below the anticipated 10 feet, or if paleontologically sensitive native sediments are encountered during excavation, a paleontologist would be retained to develop a Paleontological Resource Impact Mitigation Program (PRIMP) for the project. Recommendations of a PRIMP may include the following actions: paleontological monitoring; collection of observed resources; preservation, stabilization, and identification of collected resources; curation of resources into a museum repository; and preparation of a monitoring report of findings. Should undiscovered paleontological resources be found during project construction, the project would comply with recommendations outlined in the PRIMP.
4.8 GREENHOUSE GAS EMISSIONS

<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) 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>

The following section is based on the *Air Quality and Greenhouse Gas Emissions Analysis* (LSA 2019a), provided in Appendix A of this IS/MND. CalEEMod worksheets are also provided in Appendix A.

4.8.1 Technical Background

“Greenhouse gases” (GHGs) emitted by human activity are implicated in global climate change, commonly referred to as “global warming.” The principal GHGs are carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), O₃, and water vapor. For the purposes of planning and regulation, Section 15364.5 of the California Code of Regulations (CCR) defines GHGs as including, but not being limited to: CO₂, CH₄, N₂O, hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF₆). Fossil fuel consumption in the transportation sector (on-road motor vehicles, off-highway mobile sources, and aircraft) is the single largest source of GHG emissions, accounting for approximately one-third of State GHG emissions. Industrial and commercial sources are the second-largest contributors of GHG emissions in California.

California has passed several bills and the Governor has signed at least three executive orders (EOs) regarding GHGs. The State’s major initiative for reducing GHG emissions is outlined in Assembly Bill (AB) 32, the “Global Warming Solutions Act,” passed by the California State legislature on August 31, 2006. The major components of AB 32 include the following:

- Requiring the monitoring and reporting of GHG emissions, beginning with sources or categories of sources that contribute the most to statewide emissions;
- Requiring immediate “early action” control programs on the most readily controlled GHG sources;
- Mandating that by 2020, California’s GHG emissions be reduced to 1990 levels;
- Forcing an overall reduction of GHGs in California by 25 to 40 percent, from business as usual, to be achieved by 2020; and
- Stating that these actions must complement efforts to achieve and maintain NAAQS and CAAQS and to reduce toxic air contaminants.
In 2016, the State Legislature passed SB 32, which codifies a 2030 GHG emissions reduction target of 40 percent below 1990 levels. With SB 32, the State Legislature passed companion legislation AB 197, which provides additional direction for developing the Scoping Plan. The ARB has prepared a second update to the Scoping Plan to reflect the 2030 target set by EO B-30-15 and codified by SB 32.

On December 30, 2009, the Natural Resources Agency adopted amendments to the State CEQA Guidelines that became effective on March 18, 2010. The amendments to the State CEQA Guidelines include new requirements for evaluating GHG emissions. Pursuant to the amended State CEQA Guidelines, a lead agency should consider the following when assessing the significance of impacts from GHG emissions on the environment:

1. The extent to which the project may increase (or reduce) GHG emissions compared to the existing environmental setting;
2. Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project; and/or
3. The extent to which the project complies with regulations or requirements adopted to implement an adopted statewide, regional, or local plan for the reduction or mitigation of GHG emissions.

The City, as a lead agency, may assess the significance of GHG emissions by determining a project’s consistency with a local GHG reduction plan or Sustainability Action Plan that qualifies under Section 15183.5 of the CEQA Guidelines.

The City’s Sustainability Action Plan provides quantified baseline and future GHG emissions, identifies GHG reductions that would result from specific actions, and establishes a monitoring mechanism for the City. The City’s General Plan Program EIR provides a threshold below which the contribution of GHG emissions would not be cumulatively considerable, and provides environmental review of the SAP. Together, the Sustainability Action Plan, the City of Mission Viejo General Plan, and the EIR prepared and certified for the Sustainability Action Plan and General Plan comprise a plan for the reduction of GHG emissions within the meaning of State CEQA Guidelines Section 15183.5. Therefore, if a project is consistent with the qualified Sustainability Action Plan it would not result in significant greenhouse gas emissions.

4.8.2 Impact Analysis

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

Less Than Significant Impact. Construction and operation of the project would generate GHG emissions. Overall, the following activities associated with the proposed project could contribute directly or indirectly to the generation of GHG emissions:

- Construction Activities: During project construction, GHGs would be emitted through the operation of construction equipment and from worker and vendor vehicles, which typically use fossil-based fuels to operate. The combustion of fossil-based fuels creates GHGs (e.g., CO₂, CH₄, and N₂O). Furthermore, CH₄ is emitted during the fueling of heavy equipment.
• **Motor Vehicle Use:** Transportation associated with the proposed project would result in GHG emissions from the combustion of fossil fuels in daily automobile and truck trips.

• **Gas, Electricity, and Water Use:** Natural gas use results in the emission of two GHGs: CH₄ (the major component of natural gas) and CO₂ (from the combustion of natural gas). Electricity use can result in GHG production if the electricity is generated by combusting fossil fuel. California’s water conveyance system is energy-intensive.

• **Solid Waste Disposal:** Solid waste generated by the project could contribute to GHG emissions in a variety of ways. Landfilling and other methods of disposal use energy for transporting and managing the waste, and produce additional GHGs to varying degrees. Landfilling, the most common waste management practice, results in the release of CH₄ from the anaerobic decomposition of organic materials. CH₄ is 25 times more potent a GHG than CO₂. However, landfill CH₄ can also be a source of energy. In addition, many materials in landfills do not decompose fully, and the carbon that remains is sequestered in the landfill and not released into the atmosphere.

*Construction Greenhouse Gas Emissions.* GHG emissions associated with project construction would occur over the short term and would consist primarily of emissions from equipment exhaust. Long-term regional emissions would also be associated with project-related new vehicular trips and stationary-source emissions (i.e., natural gas used for heating and electricity usage for lighting). The calculations presented below include construction emissions in terms of CO₂ and annual CO₂e GHG emissions from increased energy consumption, water usage, and solid waste disposal, and estimated GHG emissions from vehicular traffic that would result from implementation of the proposed project.

As noted above, during construction of the proposed project, GHGs would be emitted through the operation of construction equipment and from worker and vendor vehicles, each of which typically uses fossil-based fuels to operate. The combustion of fossil-based fuels creates GHGs such as CO₂, CH₄, and N₂O. Furthermore, CH₄ is emitted during the fueling of heavy equipment. Exhaust emissions from on-site construction activities would vary daily as construction activity levels change. Table 4.8.A presents the annual construction emissions based on the CalEEMod emissions estimates.
### Table 4.8.A: Project Construction Greenhouse Gas Emissions

<table>
<thead>
<tr>
<th>Construction Phase</th>
<th>Greenhouse Gas Emissions (MT/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>CO₂</td>
</tr>
<tr>
<td>Demolition—2019</td>
<td>71.76</td>
</tr>
<tr>
<td>Site Preparation—2019</td>
<td>17.97</td>
</tr>
<tr>
<td>Grading—2019</td>
<td>76.72</td>
</tr>
<tr>
<td>Utility Installation—2019</td>
<td>23.67</td>
</tr>
<tr>
<td>Paving—2019</td>
<td>16.46</td>
</tr>
<tr>
<td>Model Building Construction—2019</td>
<td>20.49</td>
</tr>
<tr>
<td>Remaining Utility Installation—2019</td>
<td>3.79</td>
</tr>
<tr>
<td>Model Building Construction—2020</td>
<td>147.66</td>
</tr>
<tr>
<td>Remaining Utility Installation—2020</td>
<td>16.36</td>
</tr>
<tr>
<td>Remaining Paving—2020</td>
<td>32.18</td>
</tr>
<tr>
<td>Architectural Coating—2020</td>
<td>3.88</td>
</tr>
<tr>
<td>Production Building Construction (Phase 1)—2020</td>
<td>234.91</td>
</tr>
<tr>
<td>Architectural Coating (Phase 1)—2020</td>
<td>3.88</td>
</tr>
<tr>
<td>Production Building Construction (Phase 2) - 2020</td>
<td>234.91</td>
</tr>
<tr>
<td>Architectural Coating (Phase 2) - 2020</td>
<td>3.88</td>
</tr>
<tr>
<td>Production Building Construction (Phase 3) - 2020</td>
<td>234.91</td>
</tr>
<tr>
<td>Architectural Coating (Phase 3) – 2021</td>
<td>3.88</td>
</tr>
<tr>
<td>Production Building Construction (Phase 4) – 2021</td>
<td>234.91</td>
</tr>
<tr>
<td>Architectural Coating (Phase 4) – 2021</td>
<td>3.88</td>
</tr>
<tr>
<td>Production Building Construction (Phase 5) – 2021</td>
<td>234.91</td>
</tr>
<tr>
<td>Architectural Coating (Phase 5) - 2021</td>
<td>3.88</td>
</tr>
<tr>
<td>Total Construction Emissions</td>
<td>1,621.00</td>
</tr>
<tr>
<td>Amortized over 30 years</td>
<td>54.03</td>
</tr>
</tbody>
</table>

Source: Compiled by LSA Associates, Inc. (March 2019).
Note: Column totals may appear to not sum correctly due to rounding from the model results.

CH₄ = methane
CO₂ = carbon dioxide
CO₂e = carbon dioxide equivalent

Results indicate that construction would generate approximately 1,628.7 MT CO₂e per year. Per SCAQMD guidance, due to the long-term nature of the GHGs in the atmosphere, instead of determining the significance of construction emissions alone, the total construction emissions are amortized over 30 years (an estimate of the life of the project) and included in the operations analysis. To amortize the emissions over the life of the project, SCAQMD recommends calculating the total GHG emissions for the construction activities and dividing those totals by a 30-year project life. As such, construction emissions were amortized over a 30-year period. Amortized over 30 years, the total construction emissions would generate approximately 54.3 MT CO₂e per year. Therefore, construction emissions are included in the operational emissions analysis and shown in Table 4.8.B.
### Table 4.8.B: Long-Term Operational Greenhouse Gas Emissions

<table>
<thead>
<tr>
<th>Source</th>
<th>Pollutant Emissions (MT/yr)</th>
<th>Bio-CO₂</th>
<th>NBio-CO₂</th>
<th>Total CO₂</th>
<th>CH₄</th>
<th>N₂O</th>
<th>CO₂e</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Construction Emissions</td>
<td></td>
<td>0.00</td>
<td>54.03</td>
<td>54.03</td>
<td>&lt;0.01</td>
<td>0.00</td>
<td>54.28</td>
</tr>
<tr>
<td>Amortized over 30 years</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Area Sources</td>
<td></td>
<td>0.00</td>
<td>23.20</td>
<td>23.20</td>
<td>&lt;0.01</td>
<td>&lt;0.01</td>
<td>23.37</td>
</tr>
<tr>
<td>Energy Sources</td>
<td></td>
<td>0.00</td>
<td>329.91</td>
<td>329.91</td>
<td>0.01</td>
<td>&lt;0.01</td>
<td>331.37</td>
</tr>
<tr>
<td>Mobile Sources</td>
<td></td>
<td>0.00</td>
<td>1,144.73</td>
<td>1,144.73</td>
<td>0.05</td>
<td>0.00</td>
<td>1,145.92</td>
</tr>
<tr>
<td>Waste Sources</td>
<td></td>
<td>16.18</td>
<td>0.00</td>
<td>16.18</td>
<td>0.96</td>
<td>0.00</td>
<td>40.09</td>
</tr>
<tr>
<td>Water Usage</td>
<td></td>
<td>2.17</td>
<td>43.65</td>
<td>45.82</td>
<td>0.22</td>
<td>&lt;0.01</td>
<td>53.12</td>
</tr>
<tr>
<td><strong>Total Proposed Project GHG Emissions</strong></td>
<td></td>
<td>18.35</td>
<td>1,563.82</td>
<td>1,582.18</td>
<td>1.24</td>
<td>0.00</td>
<td>1,616.31</td>
</tr>
<tr>
<td>Existing On-Site Operational GHG Emissions</td>
<td></td>
<td>383.21</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Net Operational GHG Emissions</strong></td>
<td></td>
<td>1,578.10</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Compiled by LSA Associates, Inc. (March 2019)

Note: Column totals may appear to not sum correctly due to rounding from the model results.

Bio-CO₂ = biologically generated CO₂  
CH₄ = methane  
CO₂ = carbon dioxide  
CO₂e = carbon dioxide equivalent  
N₂O = nitrous oxide  
NBio-CO₂ = nonbiologically generated CO₂  
SCAQMD = South Coast Air Quality Management District

**Operational Greenhouse Gas Emissions.** Operation of the proposed project would generate GHG emissions from area and mobile sources and indirect emissions from stationary sources associated with energy consumption. Mobile-source emissions of GHGs would include project-generated vehicle trips associated with resident trips to and from the project site. Area-source emissions would be associated with activities such as landscaping and maintenance of proposed land uses, natural gas for cooking and heating, and other sources. Increases in stationary-source emissions would also occur at off-site utility providers as a result of demand for electricity, natural gas, and water by the proposed use. Table 4.8.B lists the anticipated operational GHG emissions.

Area sources include architectural coatings, consumer products, and landscaping. Energy sources include natural gas consumption for heating and cooking. As shown in Table 4.8.B, the proposed project would generate approximately 1,616.3MT CO₂e/yr. The GHG emissions generated by the existing uses on site are subtracted (netted out) from the proposed project-related GHG emissions. The total net GHG emissions would be lowered to 1,578 MT CO₂e/yr. Because the project’s GHG emissions are greater than the existing operational GHG emissions, the proposed project is required to implement measures from the Sustainability Action Plan. The proposed project’s implementation of the Sustainability Action Plan measures (as addressed in in Response 4.8(b), below) would reduce GHG emissions and would not impede or interfere with achieving the State’s emission reduction objectives in AB 32 and SB 32. Therefore, no significant impacts related to operational GHG emissions would result from the proposed project, and no mitigation would be required.
(b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

**Less Than Significant Impact.** In 2006, the California legislature passed AB 32, the Global Warming Solutions Act of 2006. The law establishes a limit on GHG emissions for the State of California to reduce statewide emissions to 1990 levels by 2020. The City’s Sustainability Action Plan, released in March 2013, builds on the City-specific information and develops the local implementation plan for City-selected GHG reduction measures. The Sustainability Action Plan identifies how the GHG reduction measures will be implemented and monitored by the City to ensure that progress is being made toward the GHG reduction target. The Sustainability Action Plan identifies only voluntary GHG reduction measures that would apply to different types of future projects. All Sustainability Action Plan measures are essentially voluntary, relying on assumed levels of community participation to create communitywide GHG reductions.

The six relevant measures listed in the Sustainability Action Plan are applicable to the proposed project:

1. **Urban Forestry.** The urban forestry measure uses street trees to capture and store carbon. It also reduces the cooling load of buildings, which decreases energy consumption.

2. **Water Efficiency.** The water efficiency measure promotes the efficient use and conservation of water in buildings and landscapes.

3. **Clean and Efficient Energy.** The clean and efficient energy measure recommends ways to increase energy efficiency in existing buildings, enhance energy performance for new construction, and increase use of renewable energy.

4. **Solid Waste Reduction.** The solid waste reduction measure aims to increase waste diversion and recycling, and to reduce consumption of materials that otherwise end up in landfills.

5. **Alternative Transportation.** The alternative transportation measure encourages carpooling, walking, and bicycling as viable transportation modes to decrease the need to drive.

6. **Traffic Management.** The coordination of signals along arterial roadways will reduce vehicle idling and fuel consumption.

The City’s General Plan Conservation and Open Space Element also contains goals and policies regarding GHG emissions. The Conservation and Open Space Element’s GHG emission targets and goals are based on meeting the goals in AB 32 and SB 32 and established in the California Air Resources Board’s (CARB) 2017 Scoping Plan. The General Plan supports four of the climate change action categories through the proposed goals, objectives, and policies relating to energy efficiency, green building, recycling/waste, and water conservation in the Conservation and Open Space Element.
The California Governor Schwarzenegger issued EO S-3-05, GHG Emissions, in June 2005, which established the following reduction targets:

- **2010:** Reduce GHG emissions to 2000 levels;
- **2020:** Reduce GHG emissions to 1990 levels; and
- **2050:** Reduce GHG emissions to 80 percent below 1990 levels.

In 2006, the California State Legislature adopted AB 32, the California Global Warming Solutions Act of 2006. AB 32 requires CARB to adopt rules and regulations that would achieve GHG emissions equivalent to statewide levels in 1990 by 2020 through an enforceable statewide emission cap, which was phased in starting in 2012. Therefore, as the proposed project’s emissions are a net reduction and meet the threshold for compliance with EO S-3-05, its emissions also comply with the goals of AB 32. Additionally, as the proposed project meets the current interim emissions targets/thresholds established by SCAQMD, it would also be on track to meet the reduction target of 40 percent below 1990 levels by 2030 mandated by EO-B-30-15 and SB 32. Furthermore, all of the post-2020 reductions in GHG emissions are addressed via regulatory requirements at the State level, and the proposed project will be required to comply with these regulations as they come into effect.

The project would comply with applicable GHG reduction measures in the City’s Sustainability Action Plan. With implementation of these reduction measures, the project would be consistent with the goals, policies, and implementation programs contained in the adopted Sustainability Action Plan. Therefore, the proposed project will be consistent and not conflict with applicable City policies or regulations, or the Sustainability Action Plan adopted for the purpose of reducing the emissions of GHG emissions. Therefore, GHG impacts are considered less than significant, and no mitigation would be required.
4.9 HAZARDS AND HAZARDOUS MATERIALS

<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) Create a significant hazard to the public or the environment through the routine transport, use or disposal of hazardous materials?</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>
</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>
</tr>
<tr>
<td>(d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?</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 or excessive noise for people residing or working in the project area?</td>
<td>□</td>
<td>□</td>
<td>☒</td>
<td></td>
</tr>
<tr>
<td>(f) 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>
</tr>
<tr>
<td>(g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?</td>
<td>□</td>
<td>□</td>
<td>☒</td>
<td></td>
</tr>
</tbody>
</table>

The discussion and analysis provided in this section are based on the *Phase I Environmental Site Assessment* (Phase I ESA) (Ardent Environmental Group, Inc. 2018; Appendix D of this IS/MND) for the Mission Foothill Marketplace, located at 28715–28841 Los Alisos Boulevard in Mission Viejo, California.

### 4.9.1 Impact Analysis

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

**Less Than Significant Impact.** Hazardous materials are chemicals that could potentially cause harm during an accidental release or mishap, and are defined as being toxic, corrosive, flammable,
reactive, and an irritant or strong sensitizer. Hazardous substances include all chemicals regulated under the United States Department of Transportation “hazardous materials” regulations and the United States Environmental Protection Agency (EPA) “hazardous waste” regulations. Hazardous wastes require special handling and disposal because of their potential to damage public health and the environment. The probable frequency and severity of consequences from the routine transport, use, or disposal of hazardous materials are affected by the type of substance, the quantity used or managed, and the nature of the activities and operations.

Construction activities associated with the proposed project would use a limited amount of hazardous and flammable substances/oils during heavy equipment operation for site excavation, grading, and construction. The amount of hazardous chemicals present during construction is limited and would be in compliance with existing government regulations. The potential for the release of hazardous materials during project construction is low, and even if a release were to occur, it would not result in a significant hazard to the public, surrounding land uses, or environment due to the small quantities of these materials associated with construction vehicles.

The project involves construction of a 105-unit residential development. Residential uses typically do not present a hazard associated with the accidental release of hazardous substances into the environment because residents are not anticipated to use, store, dispose, or transport large volumes of hazardous materials. Hazardous substances associated with residential uses are typically limited in both amount and use such that they can be contained without impacting the environment. Project operation would involve the use of potentially hazardous materials (e.g., solvents, cleaning agents, paints, fertilizers, and pesticides) typical of residential uses that, when used correctly and in compliance with existing laws and regulations, would not result in a significant hazard to people in the vicinity of the proposed project.

No manufacturing, industrial, or other uses utilizing large amounts of hazardous materials would occur within the project site. Typical use of household hazardous materials (e.g., pesticides, fertilizer, solvents, cleaning products, and paints) would not generally result in the transport, disposal, or release of hazardous materials in an amount that would create a significant hazard to the public or environment. Therefore, impacts associated with the disposal of hazardous materials and/or the potential release of hazardous materials that could occur with the implementation of the proposed project are considered less than significant, and no mitigation would be required.

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

Less Than Significant Impact. A Phase I ESA was prepared for APN 839-161-12, which includes the entire project site and surrounding property (subject property). The purpose of the Phase I analysis was to evaluate the subject property for potential Recognized Environmental Concerns

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1 A “sensitizer” is a chemical that can cause a substantial proportion of people or animals to develop an allergic reaction in normal tissue after repeated exposure to a chemical (United States Department of Labor 2017).
(RECs) that may be present, off-site conditions that may impact the subject property, and/or conditions indicative of releases or threatened releases of hazardous substances on, at, in, or to the subject property. The Phase I ESA also assessed whether a vapor encroachment condition (VEC) exists at the subject property, which evaluates whether hazardous materials or other adverse environmental conditions are present due to past or present use of the subject property and/or properties in the vicinity.

An REC can be defined as the presence or likely presence of any hazardous substances or petroleum products in or at a property due to a release to the environment; under conditions indicative of a release to the environment; or under conditions that pose a material threat of a future release to the environment.

According to the Phase I ESA, the only potential REC identified at the subject property included a former dry cleaner, which occupied a suite from approximately 1997 to April 2017, at which time the suite was vacated. Based on review of regulatory databases and agency files, the former dry cleaner may have used perchloroethylene (PCE) as a cleaning solvent from at least 2001 to 2007. In 2008, the dry cleaner reportedly changed to a petroleum hydrocarbon-based solvent. In July 2017, a subsurface investigation was completed; this included the collection of soil and soil gas samples from areas where dry-cleaning equipment was formerly located and cleaning solvents were reportedly used and stored. No concentrations of chlorinated solvents were detected in the laboratory results. In addition, soil vapor monitoring showed either no detectable concentrations of PCE or concentrations well below applicable residential screening levels. According to the Phase I ESA, the former dry-cleaning operations are not considered an REC.

The use of asbestos in many building products was banned by the EPA by the late 1970s. In 1989, the EPA issued a ruling prohibiting the manufacturing, importation, processing, and distribution of most asbestos-containing products. This rule, known as the Ban and Phase-Out Rule, would have effectively banned the use of nearly 95 percent of all asbestos products used in the United States. However, the United States Fifth Circuit Court of Appeals vacated and remanded most of the Ban and Phase-Out Rule in October 1991. Due to this court decision, many asbestos-containing product categories not previously banned (prior to 1989) may still be in use today. Among these common material types found in buildings are floor tile and roofing materials. Asbestos-containing materials (ACMs) represent a concern when they are subject to damage that results in the release of fibers. Friable ACMs, which can be crumbled by hand pressure and are therefore susceptible to damage, are of particular concern. Nonfriable ACMs are a potential concern if they are damaged by maintenance work, demolition, or other activities. Based on the age of the buildings (constructed in 1996), friable ACMs are not likely present at the site. Nonfriable ACMs, however, may be present. Based on these findings, the Phase I ESA recommends the preparation of a limited asbestos survey prior to demolition. The survey should assess whether nonfriable ACMs are present at the site. If present, nonfriable ACMs should be removed prior to demolition of the buildings.

Lead is a toxic metal that was used for many years in household products. Lead may cause a range of health defects, from behavioral problems and learning disabilities to seizures and death. Lead-based paint (LBP) was used extensively in buildings constructed prior to 1950. In 1978, LBP was
banned by the federal government. Based on the age of the buildings (constructed in 1996), LBP is not likely present at the site.

Based on the findings of the Phase I ESA, no further environmental investigation is recommended. However, due to the potential presence of nonfriable ACMs at the site, the Phase I ESA recommends the preparation of a limited asbestos survey prior to demolition in order to identify any existing hazardous materials. The project would comply with recommendations outlined in the Phase I ESA. Therefore, the proposed project would not 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. No mitigation would be required.

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

Less Than Significant Impact. The proposed residential project would not produce hazardous emissions or handle acutely hazardous materials, substances, or wastes. The nearest school to the project site is Melinda Heights Elementary School, located at 21002 Rancho Trabuco, Rancho Santa Margarita (approximately 0.8 mi east of the project site). As noted in Response 4.9(a), the proposed project is not anticipated to release hazardous emissions or handle hazardous or acutely hazardous materials, substances, or wastes in significant quantities. Construction activities associated with the proposed project would use a limited amount of hazardous and flammable substances/oils during heavy equipment operation for site excavation, grading, and construction. The amount of hazardous chemicals present during construction is limited and would be in compliance with existing government regulations. Residences would not require the use, storage, disposal, or transport of large volumes of hazardous materials that could cause serious environmental damage in the event of an accident. Although hazardous substances would be present and utilized at these residences, such substances are generally present now in the existing development, are typically found in small quantities, and can be cleaned up without affecting the environment. Further, there are no schools within 0.25 mi of the project site. Therefore, impacts related to hazardous emissions or the handling of hazardous or acutely hazardous materials, substances, or wastes within 0.25 mi of an existing or proposed school would be less than significant, and no mitigation would be required.

(d) Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 67962.5 and, as a result, would it create a significant hazard to the public or the environment?

No Impact. According to the California Department of Toxic Substances Control (DTSC) EnviroStor database, the project site is not located on a federal Superfund site, State response site, voluntary cleanup site, school cleanup site, corrective action site, or tiered permit site (DTSC 2018). Therefore, the proposed project would not result in an impact related to a known hazardous materials site pursuant to Government Code Section 65965.5 and would not create a significant hazard to the public or the environment. No mitigation would be required.
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 or excessive noise for people residing or working in the project area?

**No Impact.** The proposed project is not located within an airport land use plan and is not within 2 miles of a public airport or public use airport. The project site is approximately 13 mi east of John Wayne Airport, which is the nearest airport to the project site. The proposed townhomes and single-family detached units would be a maximum of three stories and approximately 42 ft in height at the tallest point. Thus, the residential development would not be of sufficient height to require modifications to the existing air traffic patterns at the airport and, therefore, would not affect aviation traffic levels or otherwise result in substantial aviation-related safety risks. The proposed project would not result in safety hazards for people living or working in the area different than would occur under existing conditions. No impacts would occur, and no mitigation is required.

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

**Less Than Significant Impact.** The proposed project would not physically interfere with an adopted emergency response plan or emergency evacuation plan. The City’s Public Safety Element (2009b) outlines goals and policies aimed at reducing the potential risk of loss of life, injury, property damage, and economic and social dislocation resulting from a disaster, accident, or other hazards in Mission Viejo. Emergency events addressed in the Public Safety Element include those associated with landslides, earthquakes, flooding, hazardous materials exposure, fire, crime, and general emergency preparedness. Los Alisos Boulevard, which provides local access to the Project site, is one of the City’s emergency evacuation routes.

The proposed project does not include any characteristics (e.g., permanent road closures or long-term blocking of road access) that would physically impair or otherwise conflict with an emergency response plan or emergency evacuation plan. During short-term construction activities, the proposed project is not anticipated to result in any substantial traffic queuing on nearby streets, and all construction equipment would be staged within the project site. Therefore, impacts related to emergency response and evacuation plans associated with construction of the proposed project would be less than significant.

The proposed project does not include any changes to public or private roadways that would physically impair or otherwise conflict with an emergency response plan or emergency evacuation plan. Further, the proposed project would not obstruct or alter any transportation routes that could be used as evacuation routes during emergency events, including Los Alisos Boulevard. In addition, during the operational phase of the proposed project, on-site access would be required to comply with standards established by the City and the Orange County Fire Authority (OCFA). The size and location of fire suppression facilities (e.g., hydrants) and fire access routes would be required to conform to City and OCFA standards. The proposed project would provide adequate emergency access to the site via a driveway and easement off of Los Alisos Boulevard. The driveway and easement would connect to an internal access way that would ensure access for emergency vehicles within the interior of the site. Further, access to and from the project site for emergency vehicles would be reviewed and approved by OCFA and the City as part of the project.
approval process to ensure the proposed project is compliant with all applicable codes and ordinances for emergency vehicle access. Therefore, operation of the proposed project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. Operational project impacts would be less than significant. Therefore, impacts related to interference with an emergency response plan are considered less than significant, and no mitigation would be required.

(g) Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

No Impact. The project site is within an urbanized area. The project site is bounded by SR-241 to the north; a vacant lot and hotel development to the east; commercial uses, a surface parking lot, and Los Alisos Boulevard to the south; and a residential apartment complex to the west.

The project site is not adjacent to any wildland areas. According to the City’s General Plan Public Safety Element, the project site is not within an area identified as a Fire Hazard Area that may contain substantial fire risk or a Very High Fire Hazard Severity Zone (VHFHSZ). According to the California Department of Forestry and Fire Protection (CAL FIRE), the project site is not located in a VHFHSZ (CAL FIRE 2018). As a result, the proposed project would not expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires. Therefore, no impacts are anticipated, and no mitigation would be required.
4.10 HYDROLOGY AND WATER QUALITY

<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) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?</td>
<td>☐</td>
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<tr>
<td>(b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?</td>
<td>☐</td>
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<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 or through the addition of impervious surfaces, in a manner which would:</td>
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<td>(i) result in substantial erosion or siltation on- or offsite;</td>
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<td>(ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;</td>
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<tr>
<td>(iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or</td>
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<td>(iv) impede or redirect flood flows?</td>
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<td>(d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?</td>
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<tr>
<td>(e) Conflict with or obstruct implementation of water quality control plan or sustainable groundwater management plan?</td>
<td>☐</td>
<td>☐</td>
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</tbody>
</table>

The following section is based on the Preliminary Water Quality Management Plan (PWQMP) (Proactive Engineering Consultants, Inc. 2018), which is provided in Appendix E of this IS/MND.

4.10.1 Impact Analysis

(a) Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

Less Than Significant Impact. The proposed project involves demolition of an existing commercial building and construction of a 105-unit residential development on the project site. Pollutants of concern during project construction include sediments, trash, petroleum products, concrete waste (dry and wet), sanitary waste, and chemicals. During construction activities, excavated soil would be exposed, and there would be an increased potential for soil erosion and transport of sediment downstream compared to existing conditions. During a storm event, soil erosion could occur at an accelerated rate. In addition, construction-related pollutants, such as chemicals, liquid and petroleum products (e.g., paints, solvents, and fuels), and concrete-related waste, could be...
spilled, leaked, or transported via stormwater runoff into adjacent drainages and into downstream receiving waters. Any of these pollutants has the potential to be transported via stormwater runoff into receiving waters (i.e., Oso Creek, Arroyo Trabuco Creek, San Juan Creek, and eventually the Pacific Ocean).

**Construction.** During construction, the total disturbed soil area would be approximately 6.8 ac. Because construction of the proposed project would disturb greater than 1 ac of soil, the project is subject to the requirements of the State Water Resources Control Board’s (SWRCB) National Pollutant Discharge Elimination System (NPDES) permit *Waste Discharge Requirements for Discharges of Storm Water Runoff Associated with Construction and Land Disturbance Activities* (Order No. 2009-0009-DWQ, NPDES No. CAS000002, as amended by Orders No. 2010-0014-DWQ and 2012-0006-DWQ) (Construction General Permit). Title 8, Chapter 8.10, Division 13, of the City’s Municipal Code also requires compliance with the Construction General Permit. As specified in Regulatory Compliance Measure RCM-WQ-1, coverage under the Construction General Permit would be obtained for the proposed project. The Construction General Permit and City Municipal Code require preparation of a Stormwater Pollution Prevention Plan (SWPPP) and Erosion Control Plan and implementation of construction Best Management Practices (BMPs) during construction activities. Construction BMPs would include, but not be limited to, Erosion Control and Sediment Control BMPs designed to minimize erosion and retain sediment on site and Good Housekeeping BMPs to prevent spills, leaks, and discharge of construction debris and waste into receiving waters. Compliance with the requirements of the Construction General Permit and incorporation of construction BMPs to target pollutants of concern, as specified in Regulatory Compliance Measure RCM-WQ-1, would ensure construction impacts related to waste discharge requirements, water quality standards, and surface water quality would be less than significant, and no mitigation is required.

According to the Department of Water Resources Bulletin 118, the project site is not located above a groundwater basin. Although a groundwater basin is not present, groundwater can still be located below the project site, outside of a groundwater basin. A Geotechnical Investigation has not been prepared for the proposed project, so the groundwater conditions on the site are currently unknown. However, there is a potential for groundwater to be present based on groundwater information from surrounding properties. As discussed in PWQMP prepared for the project, depth to groundwater on a neighboring property was encountered at approximately 50.4 feet below ground surface (bgs). However, as discussed in the *Phase I ESA* (Ardent Environmental Group, Inc. 2018) (Appendix D of this IS/MND) prepared for the project, groundwater has been reported at depths of 12.0 to 40.0 ft bgs in the project vicinity. Groundwater depth can fluctuate due to factors such as rainfall and presence of water in the nearby Oso Creek. Because excavation is anticipated to reach a depth of approximately 10 feet bgs, there is an unlikely but small potential for groundwater to be encountered during construction and for groundwater dewatering to be required. The Final Geotechnical Report (refer to Mitigation Measure GEO-1 in Section 4.7,  

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1. A groundwater basin is defined as an area underlain by permeable materials capable of furnishing a substantial supply of groundwater to wells or storing a substantial amount of water.
Geology and Soils) will confirm the groundwater condition on the site and verify the need for groundwater dewatering.

In the event that groundwater or perched groundwater is encountered during construction and groundwater dewatering is necessary, disposal of dewatered groundwater can introduce total dissolved solids and other constituents to surface waters. As specified in Regulatory Compliance Measure RCM-WQ-2, any groundwater dewatering during excavation would be conducted in accordance with the San Diego Regional Water Quality Control Board’s (RWQCB’s) General Waste Discharge Requirements for Groundwater Extraction Discharges to Surface Waters within the San Diego Region (Order No R9-2015-0013, NPDES No. CAG919003) (Groundwater Discharge Permit). The Groundwater Discharge Permit would require testing and treatment (as necessary) of groundwater encountered during groundwater dewatering prior to release to surface waters to ensure that discharges do not exceed water quality limits specified in the permit. Compliance with the requirements of the Groundwater Discharge Permit, as specified in Regulatory Compliance Measure RCM-WQ-2, would ensure impacts related to waste discharge requirements, water quality standards, and surface water quality would be less than significant during dewatering activities and no mitigation is required.

Operation. Potential pollutants of concern from long-term operation of residential developments include suspended solids, nutrients, bacteria/viruses/pathogens, pesticides, oil and grease, trash and debris, and dry weather runoff. Based on the existing impairments and water quality condition of the receiving waters for runoff from the project site (Oso Creek, Arroyo Trabuco Creek, and San Juan Creek), the primary pollutants of concern are nutrients, bacteria/viruses/pathogens, pesticides, and dry weather runoff. Other pollutants of concern include suspended solids, oil and grease, and trash and debris. The project would comply with the requirements of Title 6, Chapter 6.65, Division 3, of the City Municipal Code and the San Diego Regional Water Quality Control Board’s (RWQCB) National Pollutant Discharge Elimination System (NPDES) Permit and Waste Discharge Requirements for Discharges from The Municipal Separate Storm Sewer Systems (MS4s) Draining the Watersheds within the San Diego Region (Order No. R9-2013-0001, NPDES No. CAS010266, as amended by Order No, R9-2015-0001) (South Orange County MS4 Permit). The City Municipal Code and the South Orange County MS4 Permit require preparation of a Water Quality Management Plan (WQMP) and implementation of BMPs to reduce the primary and other pollutants of concern in stormwater runoff from the project site so that the project would not contribute to existing downstream impairments.

The PWQMP prepared for the project details the Site Design, Source Control, and Low Impact Development (LID) BMPs that would be implemented to reduce impacts to surface water quality. Site Design BMPs are measures incorporated into project design to reduce runoff and pollutants generated on the project site. Source Control BMPs are operational practices that prevent pollution by reducing potential pollutants at the source. LID BMPs are systems and practices that use or mimic natural processes to infiltrate, evaporate-transpire, or use stormwater to protect water quality. The proposed LID BMPs include a proprietary biofiltration BMP (Modular Wetlands System) to reduce pollutants of concern in storm water runoff leaving the project site to ensure that water quality standards in surface receiving waters are not exceeded.
Although a PWQMP has been prepared for the project, a Final WQMP would be required as specified in Regulatory Compliance Measure RCM-WQ-3. The Final WQMP would be based on final design plans and would specify the Site Design, Source Control, and LID BMPs that would be implemented to treat and reduce pollutants in stormwater runoff. Incorporation of post-construction BMPs to target pollutants of concern would ensure that operation impacts related to waste discharge requirements, water quality standards, and surface water quality would be less than significant, and no mitigation is required.

Construction and operation of the project would not involve injection of water into the groundwater table; therefore, the project would not directly introduce pollutants to groundwater. However, infiltration of stormwater can have the potential to affect groundwater quality in areas of shallow groundwater. However, as discussed above, groundwater has been reported at depths of 12.0 to 50.4 ft bgs in the project vicinity. Pollutants in stormwater are generally removed by soil through absorption as water infiltrates. Therefore, in areas of deeper groundwater, there is more absorption potential and, as a result, less potential for pollutants to reach groundwater. Due to the depth to groundwater, it is not expected that any stormwater that may infiltrate during construction and operation would affect groundwater quality because there is not a direct path for pollutants to reach groundwater. Therefore, impacts related to groundwater quality would be less than significant, and no mitigation is required.

**Regulatory Compliance Measures.** No mitigation is required. However, the following Regulatory Compliance Measures are standard conditions based on local, State, and federal regulations or laws that serve to reduce impacts related to hydrology and water quality. These Regulatory Compliance Measures are applicable to the proposed project and shall be incorporated to ensure that the project has minimal impacts to receiving waters.

**RCM-WQ-1 Construction General Permit.** The project shall comply with the requirements of the State Water Resources Control Board’s (SWRCB’s) *Waste Discharge Requirements for Discharges of Storm Water Runoff Associated with Construction and Land Disturbance Activities* (Order No. 2009-0009-DWQ, NPDES No. CAS000002, as amended by Orders No. 2010-0014-DWQ and 2012-0006-DWQ) (Construction General Permit), or subsequent permit, and the City of Mission Viejo Municipal Code, Title 8, Chapter 8.10, Division 13. Prior to issuance of a grading permit, the Applicant shall obtain coverage under the Construction General Permit. This shall include submission of Permit Registration Documents, including a Notice of Intent (NOI), to the SWRCB via the Storm Water Multiple Application and Report Tracking System (SMARTS) to obtain coverage under the Construction General Permit. Construction activities shall not be initiated until a Waste Discharge Identification Number (WDID) has been received from SMARTS. As required by the City Municipal Code, the Applicant shall provide the WDID to the City of Mission Viejo Director of Public Works, or designee, to demonstrate proof of coverage under the Construction General Permit. Construction activities shall not be initiated until a Waste Discharge Identification Number (WDID) has been received from SMARTS. As required by the City Municipal Code, the Applicant shall provide the WDID to the City of Mission Viejo Director of Public Works, or designee, to demonstrate proof of coverage under the Construction General Permit. A Storm Water Pollution Prevention Plan (SWPPP) and Erosion Control Plan shall be prepared and implemented for the proposed project in compliance with the requirements of the Construction General Permit and City Municipal Code. The SWPPP and
Erosion Control Plan shall identify construction Best Management Practices (BMPs) to be implemented to ensure that the potential for soil erosion and sedimentation is minimized and to control the discharge of pollutants in storm water runoff as a result of construction activities. Upon completion of construction and stabilization of the project site, the Applicant shall file a Notice of Termination (NOT) with the San Diego Regional Water Quality Control Board (RWQCB).

RCM-WQ-2: Groundwater Dewatering Permit. If the Final Geotechnical Report prepared for the project indicates that groundwater may be encountered during construction and groundwater dewatering is required, any groundwater dewatering activities shall comply with the requirements of the General Waste Discharge Requirements for Groundwater Extraction Discharges to Surface Waters within the San Diego Region (Order No R9-2015-0013, NPDES No. CAG919003), or subsequent permit. This shall include submission of a Notice of Intent (NOI) for coverage under the permit to the San Diego Regional Water Quality Control Board (RWQCB) at least 60 days prior to the start of dewatering and compliance with all applicable provisions in the permit, including water sampling, analysis, and reporting of dewatering-related discharges. Groundwater dewatering activities shall not be initiated until a Waste Discharge Identification Number (WDID) has been received from the San Diego RWQCB. The Applicant shall provide the WDID to the City of Mission Viejo Director of Public Works, or designee, to demonstrate proof of coverage under the permit. Upon completion of groundwater dewatering activities, the Applicant shall file a Notice of Termination (NOT) with the San Diego RWQCB.

RCM-WQ-3: Final Water Quality Management Plan. In compliance with the National Pollutant Discharge Elimination System (NPDES) Permit and Waste Discharge Requirements for Discharges from The Municipal Separate Storm Sewer Systems (MS4s) Draining the Watersheds within the San Diego Region (Order No R9-2013-0001, NPDES No. CAS010266, as amended by Order No. R9-2013-001) and Title 6, Chapter 6.65, Division 3, of the City of Mission Viejo Municipal Code, the Applicant shall submit a Final Water Quality Management Plan (WQMP) to the City of Mission Viejo Director of Public Works, or designee, for review and approval prior to issuance of grading and building permits. The Source Control, Site Design, and Low Impact Development Best Management Practices (BMPs) specified in the Final WQMP shall be incorporated into the project to reduce pollutants of concern in stormwater runoff from the project site.

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

No Impact. As discussed above in Response 4.10(a), there is a small potential for groundwater to be encountered during construction. However, any groundwater dewatering would be minimal and short-term and would not decrease groundwater supplies or interfere with recharge. As
discussed previously, the project site is not located above a groundwater basin; therefore, any groundwater dewatered would not be from a basin used for groundwater supplies or storage.

An increase in impervious surface area decreases infiltration, which can decrease the amount of water that is able to recharge groundwater. However, the project would decrease impervious surface area. Currently, the 6.8 ac project site consists of approximately 6.2 ac (91.8 percent) of impervious area. The proposed project would reduce the impervious surface area by approximately 1.1 ac (16.1 percent) to approximately 5.1 ac (75.7 percent) impervious surface area. Infiltration occurring on the project site would not serve to recharge groundwater supplies because the project site is not located above a groundwater basin. In addition, groundwater extraction would not occur during operation. For these reasons, the project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge or impede sustainable groundwater management of a groundwater basin. No mitigation is required.

(c) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

(i) Result in substantial erosion or siltation on- or offsite?

Less Than Significant Impact. During grading and other construction activities, excavated soil would be exposed and disturbed, and drainage patterns would be temporarily altered. There would also be an increased potential for soil erosion and the transport of sediment downstream compared to existing conditions. Additionally, during a storm event, soil erosion could occur at an accelerated rate. As discussed in Response 4.10(a) and required by Regulatory Compliance Measure RCM-WQ-1, the project would comply with the requirements of the Construction General Permit and City Municipal Code. The Construction General Permit and City Municipal Code require preparation of a SWPPP and Erosion Control Plan to identify construction BMPs to be implemented as a standard condition of the proposed project, which would reduce impacts to water quality during construction, including those impacts associated with soil erosion and siltation. With implementation of construction BMPs, construction impacts related to on- or off-site erosion or siltation would be less than significant, and no mitigation is required.

In the proposed condition, approximately 5.1 ac of the site would be impervious surface area and not prone to erosion or siltation. The remaining portion of the site (approximately 1.7 ac) would primarily be landscaping, which would minimize on-site erosion and siltation. The proposed project would decrease the impervious surface area on the project site compared to existing conditions (from approximately 6.2 ac to 5.1 ac), which would reduce stormwater runoff from the project site. Therefore, because the project would reduce stormwater runoff from the project site as compared to existing conditions, the proposed project would not contribute to downstream erosion or siltation. Finally, the proposed project would not alter the course of a stream or river. As such, operational impacts related to on- or off-site erosion or siltation would be less than significant, and no mitigation would be required.
(ii) **Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite?**

**Less than Significant Impact.** During construction activities, soil would be compacted and drainage patterns would be temporarily altered due to grading and other construction activities, and there would be an increased potential for flooding compared to existing conditions. As discussed in Response 4.10(a) and as specified by Regulatory Compliance Measure RCM-WQ-1, the Construction General Permit and City Municipal Code require preparation of a SWPPP and Erosion Control Plan to identify construction BMPs to be implemented as part of the proposed project to manage, control, and direct surface runoff on site to prevent flooding. Proper management of storm water during construction would reduce impacts associated with flooding. As such, construction impacts related to on- or off-site flooding would be less than significant, and no mitigation would be required.

According to the PWQMP, in the existing condition, runoff on the project site is collected in a system of gutters that discharges through grate inlets and catch basins located on site. The runoff is then conveyed into an existing 48-inch public storm drain that joins the storm drain in Los Alisos Boulevard. The proposed project would not substantially alter the existing drainage patterns. In the proposed condition, the storm drain system consists of an area drain network that would collect the flows from the residential development lots and flow to the main network within alleys and streets. Before leaving the site, the runoff would be treated by a modular wetland system and then discharged into the existing 48-inch public storm drain that joins the storm drain in Los Alisos Boulevard. This storm drain will remain, but some inlets and laterals will be removed to facilitate redevelopment. The on-site drainage systems incorporated in the project would ensure that on-site runoff is adequately conveyed so that on-site flooding does not occur. In addition, the project would reduce impervious surface areas which would reduce the volume of runoff from the project site compared to existing conditions. Therefore, the project would not increase the rate or amount of surface runoff in a manner that would result in off-site flooding. As such, operational impacts related to on- or off-site flooding would be less than significant, and no mitigation would be required.

(iii) **Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or**

**Less Than Significant Impact.** As discussed previously in Response 4.10(a), construction of the proposed project has the potential to introduce pollutants to the storm drainage system from erosion, siltation, and accidental spills. However, as required by Regulatory Compliance Measure RCM-WQ-1, project construction would comply with the Construction General Permit and City Municipal Code, which require preparation of a SWPPPP and Erosion Control Plan and implementation of construction BMPs to reduce impacts to water quality, including those impacts associated with soil erosion, siltation, and spills, so as not to provide additional sources of polluted runoff to the storm drain system. Therefore, project compliance with the requirements of the Construction General Permit and City Municipal Code would ensure that the project construction would not provide additional sources of polluted runoff. Therefore, construction impacts related to the provision of substantial additional sources of polluted runoff would be less than significant, and no mitigation is required.
As discussed under Response 4.10(a), groundwater dewatering may be required during construction. Disposal of dewatered groundwater can introduce total dissolved solids and other constituents to surface waters. As specified in Regulatory Compliance Measure RCM-WQ-2, any groundwater dewatering during excavation would be conducted in accordance with the San Diego RWQCB’s Groundwater Discharge Permit. The Groundwater Discharge Permit would require testing and treatment (as necessary) of groundwater encountered during groundwater dewatering prior to release to ensure that discharges do not provide substantial additional pollutants to surface waters. Therefore, impacts related to the provision of substantial additional sources of polluted runoff from dewatering would be less than significant, and no mitigation is required.

As discussed previously in Response 4.10(a), operation of the proposed project has the potential to introduce pollutants to the storm drainage system. As also discussed previously in Response 4.10(a) and as specified in Regulatory Compliance Measure RCM-WQ-3, the proposed project would include Source Control, Site Design, and LID BMPs to target and reduce pollutants in stormwater runoff from the project site during operation. The project includes a modular wetlands system that would filter stormwater to reduce stormwater pollutants from the project site. With implementation of operational BMPs, the proposed project would not provide substantial additional sources of polluted runoff. Therefore, impacts related to the provision of substantial additional sources of polluted runoff would be less than significant, and no mitigation is required.

As discussed previously in Response 4.10(c), the proposed project would decrease the impervious surface area compared to existing conditions (from approximately 6.2 ac to 5.1 ac), which would reduce the volume of stormwater runoff. Therefore, the project would not create or contribute additional runoff water to the downstream storm drain system that would exceed the storm drain system’s capacity, and no mitigation is required.

(iv) **Impede or redirect flood flows?**

**No Impact.** According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) Map No. 06059C0319J; December 3, 2009, the project site is not within a 100-year floodplain. The project site is mapped as Zone X, which is defined as the area determined to be outside the 0.2 percent annual change floodplain (500-year floodplain). Because the project would not include improvements or place structures within a 100-year floodplain, therefore would be no potential for the project to alter the existing drainage pattern in a manner that would impede or redirect flood flows. No impacts would occur and no mitigation would be required.

(d) **In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?**

**No Impact.** As discussed in Response 4.10(c)(iv), the project site is not within a 100-year flood hazard area. As such, the project site is not at risk of inundation during a 100-year storm event. Therefore, the proposed project would not risk release of pollutants within a flood hazard area. No impact would occur and no mitigation would be required.
Tsunamis are generated ocean wave trains generally caused by tectonic displacement of the sea floor associated with shallow earthquakes, sea floor landslides, rock falls, and exploding volcanic islands. The proposed project is approximately 12 mi from the ocean shoreline. Based on the inland location of the project site, the project site is not at risk of inundation from tsunami. Therefore, the proposed project would not risk release of pollutants from inundation from a tsunami. No impact would occur, and no mitigation is required.

Seiching is a phenomenon that occurs when seismic ground shaking induces standing waves (seiches) inside water retention facilities (e.g., reservoirs and lakes). Such waves can cause retention structures to fail and flood downstream properties. The Upper Oso Reservoir is approximately 500 ft north of the project site. Due to the proximity of the Upper Oso Reservoir, the potential for a seiche to occur may exist. However, according to the PWQMP, the design of the reservoir is anticipated to have included adequate precautions to preclude adverse effects to property beyond the limits of the reservoir should a seiche develop. In addition, SR-241, a five-lane toll road, is located between the project site and the Upper Oso Reservoir. Compared to the Upper Oso Reservoir and the project site, SR-241 is elevated and would act as an obstruction in the unlikely event of a seiche. For these reasons, the project site is not at risk of inundation from seiche waves. Therefore, the proposed project would not risk release of pollutants from inundation from seiche. No impact would occur, and no mitigation is required.

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

Less than Significant Impact. The project is within the jurisdiction of the San Diego Regional Water Quality Control Board. The San Diego RWQCB adopted a Water Quality Control Plan (i.e. Basin Plan) (September 1994, with amendments effective on or before May 2016) which designates beneficial uses for all surface and groundwater within their jurisdiction and establishes the water quality objectives and standards necessary to protect those beneficial uses. As summarized below, the project would comply with the applicable NPDES permits and implement construction and operational BMPs to reduce pollutants of concern in stormwater runoff.

As discussed in Response 4.10(a), during construction activities, excavated soil would be exposed, and there would be an increased potential for soil erosion and sedimentation compared to existing conditions. In addition, chemicals, liquid products, petroleum products (e.g., paints, solvents, and fuels), and concrete-related waste may be spilled or leaked and have the potential to be transported via stormwater runoff into receiving waters. However, as specified in Regulatory Compliance Measure RCM-WQ-1, the proposed project would be required to comply with requirements set forth by the Construction General Permit and City Municipal Code, which requires preparation of an SWPPP and Erosion Control Plan and implementation of construction BMPs to control stormwater runoff and discharge of pollutants. As specified in Regulatory Compliance Measure RCM-WQ-2, the project would comply with the requirements of Groundwater Discharge Permit, including testing and treatment (if necessary) of dewatered groundwater prior to discharge to surface waters.

As discussed in Response 4.10(a), the primary pollutants of concern are nutrients, bacteria/viruses/pathogens, pesticides, and dry weather runoff. Other pollutants of concern
include suspended solids, oil and grease, and trash and debris. As specified in Regulatory Compliance Measure RCM-WQ-3, a Final WQMP would be prepared for the project in compliance with the South Orange County MS4 Permit and City Municipal Code. The Final WQMP will detail the Source Control, Site Design, and LID BMPs that would be implemented to treat stormwater runoff and reduce impacts to water quality during operation. The proposed LID BMPs include proprietary biofiltration BMPs. These BMPs would capture and treat stormwater runoff and reduce pollutants of concern in stormwater runoff.

As specified in Regulatory Compliance Measures RCM-WQ-1 through RCM-WQ-3, the project would comply with the applicable NPDES permits and implement construction and operational BMPs to reduce pollutants of concern in stormwater runoff so that the project would not degrade water quality, cause the receiving waters to exceed the water quality objectives, or impair the beneficial use of receiving waters. As such, the project would not result in water quality impacts that would conflict with the RWQCB’s Water Quality Control Plan (Basin Plan). Impacts related to conflict with a water quality control plan would be less than significant, and no mitigation is required.

The Sustainable Groundwater Management Act (SGMA) was enacted in September 2014. SGMA requires governments and water agencies of high and medium priority basins to halt overdraft of groundwater basins. SGMA requires the formation of local groundwater sustainability agencies (GSAs), who are required to adopt Groundwater Sustainability Plans to manage the sustainability of the groundwater basins. As discussed in Response 4.10(a), the project site is not located above a groundwater basin. Therefore, the project is not located in an area covered by a sustainable groundwater management plan or in an area where a sustainable groundwater management plan will be developed. Therefore, the project would not conflict with or obstruct the implementation of a sustainable groundwater management plan, and no mitigation is required.
4.11 LAND USE PLANNING

<table>
<thead>
<tr>
<th>Would the project:</th>
<th>Potentially Significant Impact</th>
<th>Less Than Significant with Mitigation</th>
<th>Less Than Significant Impact</th>
<th>No Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) Physically divide an established community?</td>
<td>☑</td>
<td>☐</td>
<td>☑</td>
<td>☑</td>
</tr>
<tr>
<td>(b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?</td>
<td>☑</td>
<td>☐</td>
<td>☑</td>
<td>☑</td>
</tr>
</tbody>
</table>

4.11.1 Impact Analysis:

(a) **Would the project physically divide an established community?**

**No Impact.** The project site is currently developed with a multi-tenant commercial building and associated parking lot within an urbanized portion of Mission Viejo. The proposed project would redevelop the site with residential uses. The project site is bounded by SR-241 to the north; a vacant lot and hotel development to the east; commercial uses, a surface parking lot, and Los Alisos Boulevard to the south; and a residential apartment complex to the west. The Upper Oso Reservoir, which is an earth-fill dam, is directly north of SR-241. Single-family residential uses are south of Los Alisos Boulevard. The project site is primarily surrounded by residential and commercial uses, with open space areas also present in the project vicinity.

The project site includes the western portion of APN 839-161-12. As part of the project, a lot line adjustment would be required to reconfigure the project site (refer to Figure 2-3, Parcel Map). The project site (APN 839-161-12) would consist of the residential development and associated parking. The lot line adjustment would also impact the westernmost boundary of APN 839-161-16, which would align the parcel with the proposed internal roadway. The easternmost portion of APN 839-161-12 would converge with APN 839-161-16. The project site is landlocked and, as such, would require the use of an easement for site access connecting to Los Alisos Boulevard.

The project would involve the development of a residential community on a portion of a parcel currently utilized for commercial uses. As part of the project, an internal circulation road would serve the residential development and, as such, would improve connectivity in the project vicinity. Although implementation of the proposed project would change the existing parcel configuration within the site and adjacent parcels, it would not change the existing street layout. In addition, project implementation would not disturb or alter access to any existing adjacent uses. Therefore, the proposed project would not result in the physical division of any established community, and no mitigation would be required.
(b) Would the project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

Less Than Significant Impact. The main documents regulating land use for the project site and immediate vicinity are the City’s General Plan and its Zoning Code. The proposed project’s relationship to these planning documents is described below.

General Plan. The City’s General Plan is the principal land use document guiding development within Mission Viejo. The General Plan is a comprehensive plan that establishes goals and policies intended to guide growth and development in Mission Viejo. The Land Use Element (2013e) serves as a guide for land use planning by identifying the type and location of existing and future land uses within Mission Viejo.

According to the Land Use Element, the project site currently has two land use designations: Commercial Highway and Residential 30 (refer to Figure 2-4, General Plan Land Use Map). The intent of the Commercial Highway designation is to accommodate highway-oriented businesses providing goods and services to customers utilizing major transportation corridors. Allowable uses within the Commercial Highway designation include general commercial and professional office uses, as well as uses that serve both local and nonlocal populations, such as automobile dealerships, automotive repair services, and hotels and motels. The Residential 30 designation allows residential densities ranging from 14 to 30 du/ac.

The proposed project is a residential development with a density of approximately 15.7 du/ac, which would be inconsistent with the Commercial Highway land use designation on a portion the project site. Consequently, the proposed project would require a General Plan Amendment to change the land use designation for the entire site from Commercial Highway to Residential 30, which would allow residential densities ranging from 14 to 30 du/ac. Approval of the requested General Plan Amendment would resolve any inconsistencies between the proposed project and the City’s General Plan to a less than significant level. No mitigation would be required.

Municipal Code. Title 9, Zoning, Land Use, and Subdivision Regulations, of the City’s Municipal Code is the primary implementation tool for the Land Use Element and the goals and policies contained therein. Title 9 describes and elaborates on permitted land uses and contains more specific information related to allowable building intensities and development standards. Therefore, the Title 9 regulations must be consistent with the General Plan Land Use Element.

According to Title 9 of the Municipal Code, the project site currently has two zoning classifications: CH and RPD 30A. Similarly to the Commercial Highway land use designation, the CH zone accommodates highway-oriented businesses that offer goods and services to customers traveling major transportation corridors. Typical uses allowed in the CH zone include general commercial
and professional office uses. The RPD 30A zone allows residential densities ranging from 14 to 30 du/ac and requires a minimum percentage of the units to be affordable.¹

The proposed project is a residential development with a density of approximately 15.7 du/ac, which would be inconsistent with the CH and RPD 30A zoning classifications on the project site. Consequently, the entire project site would require a zone change from CH and RPD 30A to RPD 30, which would allow high density single-family and multifamily residential uses at a density range of 14 to 30 du/ac. Approval of the requested zone change would resolve any inconsistencies between the proposed project and the City’s Municipal Code to a less than significant level. No mitigation would be required.

Parking Requirements. The proposed project would be consistent with the City’s parking requirements (refer to Section 9.25.020, Number of Parking Spaces Required, in the City’s Municipal Code). The project would require a minimum of 245 parking spaces, including 210 garage spaces and 35 guest spaces. The project would provide a total of 275 on-site parking spaces, including 210 garage spaces and 65 guest spaces. Per the California Building Code (CBC), 5 percent of unassigned residential spaces must be provided in compliance with the Americans with Disabilities Act (ADA). Out of the 35 guest spaces provided for the residential development, 4 accessible parking spaces would be provided in compliance with the ADA and would be located near the recreation areas. As such, the project would satisfy the City and State parking requirements and would provide a surplus of 30 parking spaces on the project site. Therefore, adequate parking would be provided for the project site and no mitigation would be required.

The adjacent commercial uses would require a minimum of 210 parking spaces. A total of 222 parking spaces would continue to be provided and available for the existing commercial development, which would satisfy the City’s parking requirements and provide a surplus of 12 parking spaces. As required by Section 9.25.025, Accessible Parking Requirements, of the City’s Municipal Code, ADA-compliant commercial parking standards would require 7 accessible parking spaces for the commercial development with a parking lot containing between 201 and 300 total spaces. Of those 7 spaces, 2 would be required to be van-accessible spaces. In addition, California Green Code Sections 5.106.5.3 and A5.106.5.3 require electric vehicle charging infrastructure in the parking lots for new, nonresidential buildings. California Green Code Section 5.106.5.2 requires designated parking for clean air vehicles in new construction or alternations that add 10 or more vehicular parking spaces. Furthermore, California Green Code Section 5.106.4 requires short-term and long-term bicycle parking, but applies only to new construction adding greater than 9 visitor parking spaces. The proposed project and adjacent existing commercial development would not construct new nonresidential buildings and would not add nonresidential parking spaces. Therefore, these code sections do not apply to the project or the commercial development adjacent to the site.

¹ Section 9.10.030, “RPD 30A residential planned development by right,” of the City’s Municipal Code stipulates affordable housing requirements for the RPD 30A zone.
For the reasons stated above, adequate parking would be provided for the proposed project and the commercial development adjacent to the site. No mitigation would be required.

**Summary.** Approval of the requested General Plan Amendment and zone change would resolve any inconsistencies between the proposed project and the City’s General Plan and Municipal Code to a less than significant level. The proposed General Plan Amendment and zone change would not result in any significant environmental impacts. Therefore, the proposed project would not conflict with the land use plan, policies, or regulations discussed above. No mitigation would be required.
4.12 MINERAL RESOURCES

<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) 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>

4.12.1 Impact Analysis

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

No Impact. In 1975, the California Legislature enacted the Surface Mining and Reclamation Act (SMARA), which, among other things, provided guidelines for the classification and designation of mineral lands. Areas are classified on the basis of geologic factors without regard to existing land use and land ownership. The areas are categorized into four Mineral Resource Zones (MRZs):

- **MRZ-1**: An area where adequate information indicates that no significant mineral deposits are present, or where it is judged that little likelihood exists for their presence.
- **MRZ-2**: An area where adequate information indicates that significant mineral deposits are present, or where it is judged that a high likelihood exists for their presence.
- **MRZ-3**: An area containing mineral deposits, the significance of which cannot be evaluated.
- **MRZ-4**: An area where available information is inadequate for assignment to any other MRZ zone.

Of the four categories, lands classified as MRZ-2 are of the greatest importance. Such areas are underlain by demonstrated mineral resources or are located where geologic data indicate that significant measured or indicated resources are present. MRZ-2 areas are designated by the State of California Mining and Geology Board as being “regionally significant.” Such designations require that a Lead Agency’s land use decisions involving designated areas are to be made in accordance with its mineral resource management policies and that it consider the importance of the mineral resource to the region or the State as a whole, not just to the Lead Agency’s jurisdiction.

The project site has been classified by the California Department of Mines and Geology (CDMG) as MRZ-1, with a small portion of the northern boundary of the project site being classified as MRZ-3, indicating that the project site is in an area where adequate information indicates that no significant mineral deposits are present, or where it is judged that little likelihood exists for their
presence (CDMG 2018a). Further, there are no known mineral resources on the project site, and
the project site is not designated or zoned for the extraction of mineral deposits.

The proposed project would not result in the loss of a known commercially valuable or locally
important mineral resource. No impacts to known mineral resources would occur as a result of
the proposed project; therefore, no mitigation would be required.

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

No Impact. As discussed in Response 4.12(a), no known valuable mineral resources exist on or
near the project site, and no mineral resource extraction activities occur on the site. In addition,
the project site is currently developed with commercial uses and a paved asphalt parking lot.
According to the City’s General Plan Conservation and Open Space Element (2013d), the primary
natural resources within Mission Viejo are its steep slopes, canyons, and drainage courses that
are associated with the physical characteristics of the land. Although these physical features are
identified as natural resources by the City’s General Plan, they are identified as physical
characteristics of value rather than mineral resources that could potentially be extracted.
Furthermore, the project site is currently developed with commercial uses, and the proposed
redevelopment with residential structures would not cause loss of potential resources. Therefore,
no impacts related to the loss of availability of a locally important mineral resource recovery site,
as delineated on a local general plan, specific plan, or other land use plan, would occur as a result
of project implementation.
4.13 NOISE

<table>
<thead>
<tr>
<th>Would the project result in:</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) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?</td>
<td>☑</td>
<td>☑</td>
<td>☑</td>
<td>☑</td>
</tr>
<tr>
<td>(b) Generation of excessive groundborne vibration or groundborne noise levels?</td>
<td>☑</td>
<td>☑</td>
<td>☑</td>
<td>☑</td>
</tr>
<tr>
<td>(c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within 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>
</tbody>
</table>

The following section is based on the Noise and Vibration Impact Analysis (LSA 2018; Appendix F of this IS/MND) prepared for the proposed project.

4.13.1 Technical Background

The following provides an overview of the characteristics of sound and the regulatory framework that applies to noise and vibration impacts to sensitive receptors in the project vicinity.

4.13.1.1 Noise

Characteristics of Sound. Sound is increasing to such disagreeable levels in the environment that it can threaten quality of life. Noise is usually defined as unwanted sound. Noise consists of any sound that may produce physiological or psychological damage and/or interfere with communication, work, rest, recreation, and sleep.

To the human ear, sound has two significant characteristics: pitch and loudness. Pitch is generally an annoyance, while loudness can affect the ability to hear. Pitch is the number of complete vibrations, or cycles per second, of a wave, resulting in the tone’s range from high to low. Loudness is the strength of a sound that describes a noisy or quiet environment and is measured by the amplitude of the sound wave. Loudness is determined by the intensity of the sound waves combined with the reception characteristics of the human ear. Sound intensity refers to how hard the sound wave strikes an object, which in turn produces the sound’s effect. This characteristic of sound can be precisely measured with instruments. The analysis of a project defines the noise environment of the project area in terms of sound intensity and its effect on adjacent sensitive land uses.

Measurement of Sound. Sound intensity is measured through the A-weighted scale to correct for the relative frequency response of the human ear. That is, an A-weighted noise level de-emphasizes low and very high frequencies of sound similar to the human ear’s de-emphasis of these frequencies. Unlike linear units (i.e., inches or pounds) decibels (dB) are measured on a logarithmic scale.
representing points on a sharply rising curve. For example, 10 dB is 10 times more intense than 1 dB, 20 dB is 100 times more intense than 1 dB, and 30 dB is 1,000 times more intense than 1 dB. Thirty decibels (30 dB) represents 1,000 times as much acoustic energy as 1 dB. The decibel scale increases as the square of the change, representing the sound pressure energy. A sound as soft as human breathing is about 10 times greater than 0 dB. The decibel system of measuring sound gives a rough connection between the physical intensity of sound and its perceived loudness to the human ear. A 10 dB increase in the sound level is perceived by the human ear as only a doubling of the loudness of the sound. Ambient sounds generally range from 30 dB (very quiet) to 100 dB (very loud).

Sound levels are generated from a source, and their decibel level decreases as the distance from that source increases. Sound dissipates exponentially with distance from the noise source. For a single point source, sound levels decrease approximately 6 dB for each doubling of distance from the source. This drop-off rate is appropriate for noise generated by stationary equipment. If noise is produced by a line source (e.g., highway traffic or railroad operations) the sound decreases 3 dB for each doubling of distance in a hard site environment. Line source (noise in a relatively flat environment with absorptive vegetation) decreases 4.5 dB for each doubling of distance.

There are many ways to rate noise for various time periods, but an appropriate rating of ambient noise affecting humans also accounts for the annoying effects of sound. The equivalent continuous sound level \( \text{Leq} \) is the total sound energy of time-varying noise over a sample period. However, the predominant rating scales for human communities in California are the \( \text{Leq} \) and Community Noise Equivalent Level (CNEL) or the day-night average noise level \( \text{Ldn} \) based on A-weighted decibels (dBA). CNEL is the time-varying noise over a 24-hour period, with a 5 dBA weighting factor applied to the hourly \( \text{Leq} \) for noises occurring from 7:00 p.m. to 10:00 p.m. (defined as relaxation hours) and a 10 dBA weighting factor applied to noises occurring from 10:00 p.m. to 7:00 a.m. (defined as sleeping hours). The \( \text{Ldn} \) is similar to the CNEL scale but without the adjustment for events occurring during the evening hours. The CNEL and \( \text{Ldn} \) are within 1 dBA of each other and are normally interchangeable. The City uses the CNEL noise scale for long-term noise impact assessment.

Other noise rating scales of importance when assessing the annoyance factor include the maximum instantaneous noise level \( \text{Lmax} \), which is the highest exponential time-averaged sound level that occurs during a stated time period. The noise environments discussed in this analysis for short-term noise impacts are specified in terms of maximum levels denoted by \( \text{Lmax} \), which reflects peak operating conditions and addresses the annoying aspects of intermittent noise. It is often used together with another noise scale, or noise standards in terms of percentile noise levels, in noise ordinances for enforcement purposes. For example, the \( \text{L10} \) noise level represents the noise level exceeded 10 percent of the time during a stated period. The \( \text{L50} \) noise level represents the median noise level. Half the time the noise level exceeds this level, and half the time it is less than this level. The \( \text{L90} \) noise level represents the noise level exceeded 90 percent of the time and is considered the background noise level during a monitoring period. For a relatively constant noise source, the \( \text{Leq} \) and \( \text{L50} \) are approximately the same.

Noise impacts can be described in three categories. The first category includes audible impacts that refer to increases in noise levels noticeable to humans. Audible increases in noise levels generally refer to a change of 3 dB or greater because this level has been found to be barely perceptible in exterior environments. The second category, potentially audible, refers to a change in the noise level
between 1 dB and 3 dB. This range of noise levels has been found to be noticeable only in laboratory environments. The last category includes changes in noise levels of less than 1 dB, which are inaudible to the human ear. Only audible changes in existing ambient or background noise levels are considered potentially significant.

**Physiological Effects of Noise.** Physical damage to human hearing begins at prolonged exposure to noise levels higher than 85 dBA. Exposure to high noise levels affects the entire system, with prolonged noise exposure in excess of 75 dBA increasing body tensions, thereby affecting blood pressure and functions of the heart and the nervous system. In comparison, extended periods of noise exposure above 90 dBA would result in permanent cell damage. When the noise level reaches 120 dBA, a tickling sensation occurs in the human ear even with short-term exposure. This level of noise is called the threshold of feeling. As the sound reaches 140 dBA, the tickling sensation is replaced by the feeling of pain in the ear (the threshold of pain). A sound level of 160–165 dBA will result in dizziness or loss of equilibrium. The ambient or background noise problem is widespread and generally more concentrated in urban areas than in outlying, less developed area.

**Applicable Noise Standards.**

*Noise Element of the General Plan.* The Noise Element of the City’s General Plan (2009a) establishes limitations on sound levels to be received by various land uses. New development may cause existing noise-sensitive land uses to be affected by noise generated from new developments, or it may locate a sensitive use in such a place that it is adversely affected by noise. The Noise Element identifies rail and traffic on public roadways as the major sources of noise in Mission Viejo. The Noise Element uses the same exterior noise level guidelines shown in Table 4.13.A, which is a product of the State of California General Plan Guidelines (State of California 2003). The Noise Element also states that typical noise standards for sensitive land uses include 65 dBA CNEL for exterior areas and 45 dBA CNEL for interior areas.

*Municipal Code.* Title 9, Chapter 9.22, of the City’s Municipal Code includes residential exterior and interior noise standards shown in Table 4.13.B, which represent the maximum acceptable noise levels as measured from any residential property in Mission Viejo.

Accordingly, it is unlawful to cause the noise level on any residential property to exceed these exterior noise standards:

1. For a cumulative period of more than 30 minutes in any hour;
2. Plus 5 dBA for a cumulative period of more than 15 minutes in any hour;
3. Plus 10 dBA for a cumulative period of more than 5 minutes in any hour;
4. Plus 15 dBA for a cumulative period of more than 1 minute in any hour; or
5. Plus 20 dBA for any period of time.
Table 4.13.A: State of California Land Use Compatibility Guidelines

<table>
<thead>
<tr>
<th>Land Use Category</th>
<th>Community Noise Exposure (L_{dn} or CNEL, dB)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Normally Acceptable¹</td>
</tr>
<tr>
<td>Residential—Low-Density Single-Family, Duplex, Mobile Home</td>
<td>&lt;60 55–70</td>
</tr>
<tr>
<td>Residential—Multiple-Family</td>
<td>&lt;65 60–70</td>
</tr>
<tr>
<td>Transient Lodging, Motel, Hotel</td>
<td>&lt;65 60–70</td>
</tr>
<tr>
<td>School, Library, Church, Hospital, Nursing Home</td>
<td>&lt;70 60–70</td>
</tr>
<tr>
<td>Auditorium, Concert Hall, Amphitheater</td>
<td>&lt;70 65+</td>
</tr>
<tr>
<td>Sports Arenas, Outdoor Spectator Sports</td>
<td>&lt;75 70+</td>
</tr>
<tr>
<td>Playground, Neighborhood Park</td>
<td>&lt;70 67.5–75</td>
</tr>
<tr>
<td>Golf Courses, Stable, Water Recreation, Cemetery</td>
<td>&lt;75 70–80</td>
</tr>
<tr>
<td>Office Building, Business Commercial and Professional</td>
<td>&lt;70 67.5–77.5</td>
</tr>
<tr>
<td>Industrial, Manufacturing, Utilities, Agriculture</td>
<td>&lt;75 70–80</td>
</tr>
</tbody>
</table>


¹ Specified land use is satisfactory, based on the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.

² New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features are included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning, will normally suffice.

³ New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design. Outdoor areas must be shielded.

⁴ New construction or development should generally not be undertaken.

CNEL = Community Noise Equivalent Level

Table 4.13.B: Residential Noise Standards (dBA Leq)

<table>
<thead>
<tr>
<th>Land Use Type</th>
<th>Daytime (7:00 a.m. to 10:00 p.m.)</th>
<th>Nighttime (10:00 p.m. to 7:00 a.m.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential Exterior Noise Standards</td>
<td>55</td>
<td>50</td>
</tr>
<tr>
<td>Residential Interior Noise Standards</td>
<td>55</td>
<td>45</td>
</tr>
<tr>
<td>Nonresidential Exterior Noise Standards</td>
<td>65</td>
<td>65</td>
</tr>
</tbody>
</table>


Notes: Standards are based on measurements taken from any residential property in Mission Viejo.

dBA = A-weighted decibels

Leq = equivalent continuous sound level

While the exterior noise standard is based on a cumulative period of 30 minutes or more (typically represented by the descriptor L_{50}, given that noise may occur for up to a 1-hour time period), the same noise level standard will be used to assess hourly standards in this analysis (also defined as Leq).
In addition, it is unlawful to cause the noise level on any residential property to exceed these interior noise standards:

1. For a cumulative period of more than 5 minutes in any hour;
2. Plus 5 dB(A) for a cumulative period of more than 1 minute in any hour; or
3. Plus 10 dB(A) for any period of time.

In the event the alleged offensive noise consists entirely of impact or peak-event noise, simple-tone noise, speech, music, or any combination thereof, each of the above noise levels is reduced by 5 dBA.

Section 9.22.035, Special Provisions, of the City’s Municipal Code regulates the timing of construction activities and includes special provisions for sensitive land uses. According to the Municipal Code, construction activities shall 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.

4.13.1.2 Vibration

Vibration refers to groundborne noise and perceptible motion. Groundborne vibration is almost exclusively a concern inside buildings and is rarely perceived as a problem outdoors, where the motion may be discernible, but without the effects associated with the shaking of a building there is less adverse reaction. Vibration energy propagates from a source through intervening soil and rock layers to the foundations of nearby buildings. The vibration then propagates from the foundation throughout the remainder of the structure. Building vibration may be perceived by occupants as the motion of building surfaces, the rattling of items on shelves or hanging on walls, or a low-frequency rumbling noise. The rumbling noise is caused by the vibration of walls, floors, and ceilings that radiate sound waves. Annoyance from vibration often occurs when the vibration exceeds the threshold of perception by 10 vibration velocity decibels (VdB) or less. This is an order of magnitude below the damage threshold for normal buildings.

Typical sources of groundborne vibration are construction activities (e.g., blasting, pile driving, and operating heavy-duty earthmoving equipment), steel-wheeled trains, and occasional traffic on rough roads. Problems with both groundborne vibration and noise from these sources are usually localized to areas within approximately 100 ft from the vibration source, although there are examples of groundborne vibration causing interference out to distances greater than 200 ft (FTA 2018). When roadways are smooth, vibration from traffic, even heavy trucks, is rarely perceptible. It is assumed for most projects that the roadway surface will be smooth enough that groundborne vibration from street traffic will not exceed the impact criteria; however, both construction of a project and freight train operations on railroad tracks could result in groundborne vibration that may be perceptible and annoying.

Factors that influence groundborne vibration and noise include the following:

- **Vibration Source:** Vehicle suspension, wheel types and condition, railroad track/roadway surface, railroad track support system, speed, transit structure, and depth of vibration source.
• **Vibration Path:** Soil type, rock layers, soil layering, depth to water table, and frost depth.
• **Vibration Receiver:** Foundation type, building construction, and acoustical absorption.

Among the factors listed above, there are significant differences in the vibration characteristics when the source is underground compared to at the ground surface. In addition, soil conditions are known to have a strong influence on the levels of groundborne vibration. Among the most important factors are the stiffness and internal damping of the soil and the depth to bedrock.

Experience with groundborne vibration indicates: (1) vibration propagation is more efficient in stiff, clay soils than in loose, sandy soils; and (2) shallow rock seems to concentrate the vibration energy close to the surface and can result in groundborne vibration problems at large distances from a railroad track. Factors including layering of the soil and the depth to the water table can have significant effects on the propagation of groundborne vibration. Soft, loose, sandy soils tend to attenuate more vibration energy than hard, rocky materials. Vibration propagation through groundwater is more efficient than through sandy soils.

**Applicable Vibration Standards.** Vibration standards included in the Federal Transit Administration’s (FTA) *Transit Noise and Vibration Impact Assessment* (FTA 2018) are used in this analysis for groundborne vibration impacts on human annoyance, as shown in Table 4.13.C. The criteria presented in Table 4.13.C account for variation in project types, as well as the frequency of events, which differ widely among projects. It is intuitive that when there will be fewer events per day, it should take higher vibration levels to evoke the same community response.

### Table 4.13.C: Groundborne Vibration and Groundborne Noise Impact Criteria for General Assessment

<table>
<thead>
<tr>
<th>Land Use Category</th>
<th>Groundborne Vibration Impact Levels (VdB re 1 µin/sec)</th>
<th>Groundborne Noise Impact Levels (dB re 20 µPa)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequent¹ Events</td>
<td>Occasional² Events</td>
</tr>
<tr>
<td>Category 1: Buildings where low ambient vibration is essential for interior operations.</td>
<td>65 VdB⁴</td>
<td>65 VdB⁴</td>
</tr>
<tr>
<td>Category 2: Residences and buildings where people normally sleep.</td>
<td>72 VdB</td>
<td>75 VdB</td>
</tr>
<tr>
<td>Category 3: Institutional land uses with primarily daytime use.</td>
<td>75 VdB</td>
<td>78 VdB</td>
</tr>
</tbody>
</table>


¹ Frequent events are defined as more than 70 events per day.
² Occasional events are defined as between 30 and 70 events per day.
³ Infrequent events are defined as fewer than 30 events per day.
⁴ This criterion limit is based on levels that are acceptable for most moderately sensitive equipment, such as optical microscopes.
⁵ Vibration-sensitive equipment is not sensitive to groundborne noise.

µin/sec = microinches per second  
µPa = micropascals

dB = decibels  
dBA = A-weighted decibels

FTA = Federal Transit Administration  
HVAC = heating, ventilation, and air conditioning

in/sec = inches per second  
N/A = not applicable

VdB = vibration velocity decibels
The criteria for environmental impact from groundborne vibration and noise are based on the maximum levels for a single event. Table 4.13.D lists the potential vibration building damage criteria associated with construction activities, as suggested in the *Transit Noise and Vibration Impact Assessment* (FTA 2018).

**Table 4.13.D: Construction Vibration Damage Criteria**

<table>
<thead>
<tr>
<th>Building Category</th>
<th>PPV (in/sec)</th>
<th>Approximate $L_V$ (VdB)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reinforced concrete, steel, or timber (no plaster)</td>
<td>0.50</td>
<td>102</td>
</tr>
<tr>
<td>Engineered concrete and masonry (no plaster)</td>
<td>0.30</td>
<td>98</td>
</tr>
<tr>
<td>Non-engineered timber and masonry buildings</td>
<td>0.20</td>
<td>94</td>
</tr>
<tr>
<td>Buildings extremely susceptible to vibration damage</td>
<td>0.12</td>
<td>90</td>
</tr>
</tbody>
</table>


1. RMS vibration velocity in decibels (VdB) re 1 µin/sec.
2. µin/sec = inches per second  
3. PPV = peak particle velocity  
4. FTA = Federal Transit Administration  
5. in/sec = inches per second  
6. $L_V$ = velocity in decibels  
7. VdB = vibration velocity decibels

FTA guidelines show that a vibration level of up to 102 VdB (equivalent to 0.5 inch per second [in/sec] in peak particle velocity [PPV]) (FTA 2018) is considered safe for buildings consisting of reinforced concrete, steel, or timber (no plaster) and would not result in any construction vibration damage. For a non-engineered timber and masonry building, the construction building vibration damage criterion is 94 VdB (0.2 in/sec in PPV).

**Thresholds of Significance.** A project would normally have a significant effect on the environment related to noise if it would substantially increase the ambient noise levels for adjoining areas or conflict with the adopted environmental plans and the goals of the community in which the project is located. The applicable noise standards governing the project site are the criteria in the Noise Element and Title 9, Chapter 9.22, of the City’s Municipal Code. In addition, FTA guidelines are the applicable vibrations standards governing the project site. Typically, compliance with the City’s Municipal Code is used to determine when a project results in a significant impact.

**Existing Noise Environment.** The project site is located directly south of SR-241 and north of Los Alisos Boulevard. The nearest sensitive receptors include the commercial uses approximately 30 ft south of the project site, as well as the residential uses approximately 100 ft west of the project site.

To assess existing noise levels, two long-term noise measurements and two short-term noise measurements were conducted on the project site. The long-term noise measurements were recorded between November 14, 2018, and November 15, 2018. The long-term noise measurements captured hourly $L_{eq}$ data as well as CNEL data, which incorporate the nighttime hours. The short-term noise measurements were recorded along the southern property line on November 14, 2018. Noise measurement data collected during the noise monitoring are summarized in Table 4.13.E.
Table 4.13.E: Existing Noise Level Measurements

<table>
<thead>
<tr>
<th>Location</th>
<th>Description</th>
<th>Daytime Noise Levels(^1) (dBA (L_{eq}))</th>
<th>Evening Noise Levels(^2) (dBA (L_{eq}))</th>
<th>Nighttime Noise Levels(^3) (dBA (L_{eq}))</th>
<th>Average Daily Noise Levels (dBA CNEL)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LT-1</td>
<td>On the northwest portion of the project site near the existing Family Member Veterinary Hospital</td>
<td>62.0–67.1</td>
<td>60.6–63.6</td>
<td>49.9–63.3</td>
<td>66.3</td>
</tr>
<tr>
<td>LT-2</td>
<td>Near the center of the existing Mission Foothill Marketplace parking lot</td>
<td>54.9–60.3</td>
<td>55.7–58.2</td>
<td>45.4–60.8</td>
<td>61.5</td>
</tr>
<tr>
<td>ST-1(^4)</td>
<td>On the northeast portion of the project site near the existing vacant commercial units</td>
<td>50.5–55.9</td>
<td>51.3–53.8</td>
<td>41.0–56.4</td>
<td>57.1</td>
</tr>
<tr>
<td>ST-2(^4)</td>
<td>On the western property line of the existing Mission Foothill Marketplace approximately 300 feet from Los Alisos Boulevard.</td>
<td>52.6–57.7</td>
<td>51.2–54.2</td>
<td>40.5–53.9</td>
<td>56.9</td>
</tr>
</tbody>
</table>


1. Daytime Noise Levels = noise levels between 7:00 a.m. and 7:00 p.m.
2. Evening Noise Levels = noise levels between 7:00 p.m. and 10:00 p.m.
3. Nighttime Noise Levels = noise levels between 10:00 p.m. and 7:00 a.m.
4. Short-term measurements are normalized to the nearest 24-hour measurement.

4.13.2 Impact Analysis

(a) Would the project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Less Than Significant with Mitigation Incorporated.

Construction Noise Impacts. Short-term noise impacts would occur during demolition and construction of the proposed project. Construction-related, temporary noise levels would be higher than existing ambient noise levels in the study area but would cease once project construction is completed.

Two types of temporary noise impacts would occur during project construction. The first type would be from construction crew commutes and the transport of construction equipment and materials to the project site and would incrementally raise noise levels on access roads leading to the site. The pieces of heavy equipment for grading and construction activities will be moved on site, will remain for the duration of each construction phase, and will not add to the daily traffic volume in the project vicinity. Los Alisos Boulevard would be used to access the project site. Although there would be high single-event noise exposure potential at a maximum level of 84 dBA \(L_{max}\) from trucks passing at 50 ft, the effect on longer-term (hourly or daily) ambient noise levels would be small compared to existing hourly and daily traffic volumes. Because construction-related vehicle trips would not approach the hourly and daily traffic volumes described above,
hourly and daily traffic noise would not increase by 3 dBA, which is considered imperceptible to
the human ear in an outdoor environment. Therefore, temporary, construction-related impacts
associated with worker commutes and equipment transport to the project site would be less than
significant.

The second type of temporary noise impact is related to noise generated during demolition, site
preparation, grading, building construction, architectural coating, and paving on the project site.
Construction is undertaken in discrete steps, each of which has its own mix of equipment and,
consequently, its own noise characteristics. These various sequential phases would change the
character of the noise generated on the project site. Therefore, the noise levels vary as
construction progresses. Despite the variety in the type and size of construction equipment,
similarities in the dominant noise sources and patterns of operation allow construction-related
noise ranges to be categorized by work phase. Table 4.13.F lists the maximum noise levels
recommended for noise impact assessments for typical construction equipment based on a
distance of 50 ft between the equipment and a noise receptor.

Table 4.13.F: Typical Maximum Construction Equipment
Noise Levels (L_{max})

<table>
<thead>
<tr>
<th>Type of Equipment</th>
<th>Acoustical Usage Factor</th>
<th>Suggested Maximum Sound Levels for Analysis (dBA L_{max} at 50 ft)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air Compressor</td>
<td>40</td>
<td>80</td>
</tr>
<tr>
<td>Backhoe</td>
<td>40</td>
<td>80</td>
</tr>
<tr>
<td>Cement Mixer</td>
<td>50</td>
<td>80</td>
</tr>
<tr>
<td>Concrete/Industrial Saw</td>
<td>20</td>
<td>90</td>
</tr>
<tr>
<td>Crane</td>
<td>16</td>
<td>85</td>
</tr>
<tr>
<td>Excavator</td>
<td>40</td>
<td>85</td>
</tr>
<tr>
<td>Forklift</td>
<td>40</td>
<td>85</td>
</tr>
<tr>
<td>Generator</td>
<td>50</td>
<td>82</td>
</tr>
<tr>
<td>Grader</td>
<td>40</td>
<td>85</td>
</tr>
<tr>
<td>Loader</td>
<td>40</td>
<td>80</td>
</tr>
<tr>
<td>Pile Driver</td>
<td>20</td>
<td>101</td>
</tr>
<tr>
<td>Paver</td>
<td>50</td>
<td>85</td>
</tr>
<tr>
<td>Roller</td>
<td>20</td>
<td>85</td>
</tr>
<tr>
<td>Rubber-Tired Dozer</td>
<td>40</td>
<td>85</td>
</tr>
<tr>
<td>Scraper</td>
<td>40</td>
<td>85</td>
</tr>
<tr>
<td>Tractor</td>
<td>40</td>
<td>84</td>
</tr>
<tr>
<td>Truck</td>
<td>40</td>
<td>84</td>
</tr>
<tr>
<td>Welder</td>
<td>40</td>
<td>73</td>
</tr>
</tbody>
</table>


* dBA = A-weighted decibels
* ft = feet
* L_{max} = maximum instantaneous noise level

Typical maximum noise levels range up to 85 dBA L_{max} at 50 ft during the noisiest construction
phases. Site preparation, which includes excavation and grading, tends to generate the highest
noise levels because the noisiest construction equipment includes earthmoving equipment.
Earthmoving equipment includes graders, excavators, bulldozers, backhoes, and front loaders.
Each piece of construction equipment operates as an individual point source. The composite noise level of the two loudest pieces of equipment—the forklift and tractor—during construction, as required by the FTA criteria, would be 82 dBA L\text{eq} at a distance of 50 ft from the construction area. Typical operating cycles for these types of construction equipment may involve 1 to 2 minutes of full-power operation followed by 3 to 4 minutes at lower power settings.

It is expected that noise levels for the residences to the west, approximately 100 ft away, would approach 76 dBA L\text{eq}, which is potentially higher than the existing noise levels. Additionally, it is expected that noise levels for the commercial uses to the south, approximately 30 ft away, would approach 87 dBA L\text{eq}. Therefore, implementation of Mitigation Measure NOI-1 would be required to reduce potential construction noise impacts. Mitigation Measure NOI-1 would limit construction hours and require the construction contractor to implement noise-reducing measures during construction.

Although project construction noise has the potential to be higher than ambient noise in the project vicinity at times, it would be temporary in nature and cease to occur once project construction is completed. The proposed project would be required to comply with the construction hours and days specified in the City’s Municipal Code. In addition, temporary construction-related noise impacts would remain below the 90 dBA L\text{eq} 1-hour construction noise level criteria established by the FTA. Further, implementation of Mitigation Measure NOI-1 would reduce potential construction noise impacts, resulting in a less than significant impact.

**Operational Impacts.** A substantial permanent increase in ambient noise levels in the project vicinity above existing levels is considered to occur if the project would cause long-term noise levels to increase by 3 dBA or more. Potential long-term noise impacts associated with project operation would include exterior traffic noise and interior noise.

**Exterior Traffic Noise.** The project site is located in an area in which most surrounding parcels are currently in use. For this reason, the analysis relies on the existing measured noise levels (shown in Table 4.13.G) to provide the most accurate description of the current noise environment. A growth factor is then applied to account for the increase in traffic noise following build out.

**Table 4.13.G: Existing Traffic Noise Levels Without the Project**

<table>
<thead>
<tr>
<th>Roadway Segment</th>
<th>ADT</th>
<th>Centerline to 70 dBA CNEL (feet)</th>
<th>Centerline to 65 dBA CNEL (feet)</th>
<th>Centerline to 60 dBA CNEL (feet)</th>
<th>CNEL (dBA) 50 feet from Centerline of Outermost Lane</th>
</tr>
</thead>
<tbody>
<tr>
<td>SR-241 north of Los Alisos Boulevard</td>
<td>36,500</td>
<td>150</td>
<td>318</td>
<td>682</td>
<td>74.5</td>
</tr>
</tbody>
</table>

Source: Compiled by LSA Associates, Inc. (November 2018).

Note: Traffic noise within 50 feet of the roadway centerline should be evaluated with site-specific information.

ADT = average daily traffic

CNEL = Community Noise Equivalent Level

dBA = A-weighted decibels
In order to provide a conservative assumption of the increase in traffic, given that the area is generally built out, a future volume of twice the existing traffic volume is used, resulting in an increase of 3 dBA CNEL. By incorporating this increase with the noise levels determined in Table 4.13.H, the build-out scenario for the proposed project would have noise-sensitive residences approximately 120 ft from the nearest lane centerline of SR-241 exposed to traffic noise up to 72 dBA CNEL.

Table 4.13.H: Modeled Existing Traffic Noise Levels at the Project Site

<table>
<thead>
<tr>
<th>Roadway Segment</th>
<th>CNEL (dBA) 50 feet from Centerline of Outermost Lane</th>
<th>Distance from Centerline of Outermost Lane to Project Site (feet)</th>
<th>CNEL (dBA) at Project Site</th>
</tr>
</thead>
<tbody>
<tr>
<td>SR-241 north of Los Alisos Boulevard</td>
<td>74.5</td>
<td>120</td>
<td>68.8</td>
</tr>
</tbody>
</table>

Source: Compiled by LSA Associates, Inc. (November 2018).
CNEL = Community Noise Equivalent Level
dBA = A-weighted decibels

As shown in Table 4.13.A, noise environments that range from 70 to 75 dBA CNEL are normally unacceptable to the City, and new construction or development is generally discouraged. However, new development can proceed with a detailed analysis of the noise reduction requirements and through incorporating needed noise insulation features in the design.

While this exterior noise level would exceed the City’s exterior noise standard of 65 dBA CNEL for residential land uses, the more sensitive outdoor uses, including the tot lot and community recreation area, would be shielded and would not experience noise levels exceeding the exterior standard. Additionally, based on distance attenuation and shielding from the townhome buildings, exterior noise levels at the single-family home private yards will be below the City’s 65 dBA CNEL exterior noise level standard. Further, operations associated with the proposed project are not anticipated to lead to a substantial increase or doubling in the number of vehicles at the project site. Therefore, the long-term noise levels associated with increased traffic are not anticipated to be significant as a result of the proposed project and would have a less than significant impact.

Interior Noise. Based on the EPA’s Protective Noise Levels (1978), with windows and doors open, interior noise levels at the frontline townhome residences would have an interior noise level of 60 dBA CNEL (72 dBA - 12 dBA = 60 dBA) and would exceed the City’s interior noise standard of 45 dBA CNEL. With windows and doors closed, interior noise levels in these frontline townhome units would have an interior noise level of 48 dBA CNEL (72 dBA - 24 dBA = 48 dBA) and would also exceed the City’s interior noise standard of 45 dBA CNEL. In order to achieve the required composite façade reduction, a Final Acoustical Report (as described in Mitigation Measure NOI-2) shall be prepared to identify specific features that will be incorporated into the project to achieve the necessary sound attenuation. The features may include, but are not limited to, the following:

- **Upgraded Windows.** Because the reduction provided by the entire assembly is heavily dependent on the rating of the windows due to the much lower noise-reducing
characteristics of glass compared to solid walls with insulation, a higher Sound Transmission Class rating may be required to reduce interior noise levels. Most major window companies sell windows specifically designed for loud exterior conditions.

- **Reduced Window Sizes or Types.** As stated above, traditionally windows are seen as the “weak point” in an exterior façade. Depending on the necessary reduction needed in a loud environment or the specifications of the windows chosen, it may be necessary to reduce the size or types of windows and sliding glass doors.

- **Upgraded Wall Construction.** It may be necessary, typically in combination with upgraded windows, to improve the composition of the exterior wall construction. This can be done by adding resilient channels, increasing layers of gypsum board, altering stud spacing, or upgrading insulation.

Implementation of such features would be expected to reduce noise levels for interior spaces by more than 3 dBA, which would allow for the units to meet the City’s interior noise standard with windows in a closed position. As described in Mitigation Measure NOI-3, a form of mechanical ventilation, such as an air-conditioning system, would be required as part of the final project design for all on-site buildings and units.

Noise impacts related to exterior traffic would exceed the City’s noise standards. Therefore, the project would result in potentially significant impacts related to exterior noise. However, impacts related to a substantial permanent increase in ambient noise levels in the project vicinity would be reduced to a less than significant level with implementation of Mitigation Measures NOI-2 and NOI-3. No further mitigation would be required.

**Mitigation Measures.** The following mitigation measures are required to reduce potential project-related impacts related to noise to a less than significant level:

**NOI-1 Construction Noise.** Prior to issuance of demolition permits, the General Manager of the City of Mission Viejo (City) Department of Building and Safety, or designee, shall verify that all construction plans include notes stipulating the following:

- Prohibit all noise-producing construction activities between the hours of 8:00 p.m. and 7:00 a.m. on weekdays and Saturdays. Construction shall not be allowed at any time on Sundays or federal holidays.
- Grading and construction contractors shall use equipment that generates lower vibration levels, such as rubber-tired equipment rather than metal-tracked equipment when feasible.
- Construction haul truck and materials delivery traffic shall avoid residential areas whenever feasible.
The construction contractor shall place noise- and vibration-generating construction equipment and locate construction staging areas away from sensitive uses whenever feasible.

The construction contractor shall use on-site electrical sources to power equipment rather than diesel generators where feasible.

All residential units within 500 feet (ft) of the construction site shall be sent a notice regarding the construction schedule. A sign legible at a distance of 50 ft shall also be posted at the construction site. All notices and the signs shall indicate the dates and durations of construction activities, as well as provide a telephone number for the “noise disturbance coordinator.”

A “noise disturbance coordinator” shall be established. The disturbance coordinator shall be responsible for responding to any local complaints about construction noise. The disturbance coordinator shall determine the cause of the noise complaint (e.g., starting too early, bad muffler) and shall be required to implement reasonable measures to reduce noise levels.

**NOI-2 Final Acoustical Report.** Prior to the issuance of any certificates of occupancy, the Project Applicant/Developer shall submit a Final Acoustical Report, prepared by a qualified acoustical consultant, to the City. The Mission Viejo Department of Building and Safety, or designee, shall verify that the Final Acoustical Report demonstrates that all units with exterior façades, including all bedrooms and living rooms, comply with the City’s interior noise standard (45 dBA Community Noise Equivalent Level [CNEL]). Noise reduction techniques that may be incorporated into construction plans to reduce interior noise levels include, but are not limited to: incorporation of upgraded windows and doors, improved wall construction, or reduced window and door sizes.

**NOI-3 Ventilation Requirements.** Prior to the issuance of building permits, documentation shall be provided to the Mission Viejo Department of Building and Safety, or designee, demonstrating that the project buildings meet ventilation standards required by the California Building Code with windows closed. Mechanical ventilation, such as an air-conditioning system, shall be required as part of the project design for all on-site buildings/units.

**Less Than Significant Impact.**

**Construction Vibration Impacts.** Ground-borne noise and vibration from construction activity would be mostly low to moderate. While there is currently limited information regarding vibration source levels, to provide a comparison of vibration levels expected for a project of this size, as shown in Table 4.13.I, a large bulldozer would generate approximately 87 VdB (0.089 in/sec) of ground-borne vibration when measured at 25 ft, based on the *Transit Noise and Vibration Impact Assessment* (FTA 2018).
Table 4.13.I: Vibration Source Amplitudes for Construction Equipment

<table>
<thead>
<tr>
<th>Equipment</th>
<th>Reference PPV/L_V at 25 ft</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>PPV (in/sec)</td>
</tr>
<tr>
<td>Hoe Ram</td>
<td>0.089</td>
</tr>
<tr>
<td>Large Bulldozer</td>
<td>0.089</td>
</tr>
<tr>
<td>Caisson Drilling</td>
<td>0.089</td>
</tr>
<tr>
<td>Loaded Trucks</td>
<td>0.076</td>
</tr>
<tr>
<td>Jackhammer</td>
<td>0.035</td>
</tr>
<tr>
<td>Small Bulldozer</td>
<td>0.003</td>
</tr>
</tbody>
</table>


1 RMS VdB re 1 µin/sec.

µin/sec = microinches per second
ft = feet
PPV = peak particle velocity
L_V = velocity in decibels
FTA = Federal Transit Administration
RMS = root-mean-square
in/sec = inches per second
VdB = vibration velocity in decibels

As shown above in Table 4.13.D, it would take a minimum of 90 VdB (0.12 in/sec PPV) to cause any potential building damage and a minimum of 94 VdB (0.2 in/sec PPV) to cause damage to a non-engineered timber and masonry building.

The project site is bounded by an existing residential use to the west and commercial buildings to the south. The closest structures are approximately 30 ft from the project construction area limits. The operation of a large bulldozer and similar construction equipment would generate ground-borne vibration levels of 85 VdB (0.068 in/sec PPV); however, those levels would not exceed the 0.12 in/sec PPV or 90 VdB guideline that is considered safe for any building type and would be less than significant.

Large bulldozers and other similar equipment used for a project of this size would generate levels of approximately 81 VdB of ground-borne vibration at the closest sensitive uses. Based on the information provided earlier in Table 4.13.D, this level of ground-borne vibration is below the threshold of distinctly perceptible, which is around 83 VdB for infrequent events at facilities with primarily daytime use. Therefore, impacts associated with construction vibration would be less than significant, and no mitigation would be required.

Operational Vibration Impacts. Operation of the proposed residences would not generate vibration. In addition, vibration levels generated from project-related traffic on the adjacent roadways are unusual for on-road vehicles because the rubber tires and suspension systems of on-road vehicles provide vibration isolation. Vibration generated from project-related traffic on the adjacent roadways would be less than significant, and no mitigation would be required. Therefore, long-term, ground-borne noise and vibration impacts from vehicular traffic generated by the project would be less than significant, and no mitigation would be required.
(c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

No Impact. The project site is not within the vicinity of a private airstrip or an airport land use plan. The project site is approximately 13 mi southeast of John Wayne Airport, which is the nearest airport to the project site. The project is outside the 65 dBA CNEL noise contours of John Wayne Airport. Therefore, no noise impacts from aircraft noise would occur, and no mitigation would be required.
4.14 POPULATION AND HOUSING

<table>
<thead>
<tr>
<th>Would the project:</th>
<th>Potentially Significant Impact</th>
<th>Less Than Significant Impact with Mitigation Incorporate</th>
<th>Less Than Significant Impact</th>
<th>No Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?</td>
<td>☐</td>
<td>☐</td>
<td>X</td>
<td>☐</td>
</tr>
<tr>
<td>(b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>X</td>
</tr>
</tbody>
</table>

4.14.1 Impact Analysis

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

**Less Than Significant Impact.** The project would involve the demolition of an existing 99,500 sf commercial building on the project site and construction of 105 new homes, 275 parking spaces, and community facilities. The proposed residential development would include 61 three-story townhomes (ranging from 1,215 to 1,950 sf) with two- to four-bedroom floor plans, private patios, and two-car garages. The project would also include 44 three-story single-family detached homes (ranging from 1,886 to 2,130 sf) with three- to four-bedroom floor plans, private yards, and two-car garages. The project would have a residential density of 15.7 du/ac and would provide approximately 192,116 sf of dwelling area and 8,780 sf of shared recreational area. Because the existing use is not residential, the proposed project would result in a net increase of 105 residential units. As part of the project, the Applicant proposes that 17 units (or approximately 16 percent of the proposed 105 units) would be moderate-income affordable. However, the final amount and income level of affordable units will ultimately be determined by the City through the project review and approval process.

Based on the California Department of Finance population and housing estimate of 2.85 persons per household within Mission Viejo (California Department of Finance 2018), the proposed project would result in a net increase of approximately 300 new residents. The addition of 300 new residents would represent approximately 0.32 percent of Mission Viejo’s population of 93,174 in 2010 (California Department of Finance 2018), approximately 0.31 percent of its estimated population of 95,987 in 2018 (California Department of Finance 2018), and approximately 0.031 percent of its projected population of 96,600 in 2040 (SCAG 2015). The increase in population resulting from the proposed project is not considered significant because it comprises only a small

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1 Although a final sales price has not yet been determined, the Applicant estimates that restricted moderate-income units would be priced at approximately $411,000 each.
portion (less than 1 percent) of the total population of Mission Viejo and does not represent a substantial increase in population.

In 2018, the estimated median income in Orange County was $81,851 (United States Census Bureau 2019). The Regional Housing Needs Assessment Allocation Plan (RHNA), mandated by the California State Housing Element law as part of the process of updating local housing elements of cities’ General Plans, has quantified a range of housing needs by income groups for each jurisdiction during specific planning periods. State law establishes five income categories for purposes of housing programs based on the County’s average median income (AMI): extremely-low (30 percent or less of AMI); very-low (31–50 percent of AMI); low (51–80 percent of AMI); moderate (81–120 percent of AMI); and above moderate (over 120 percent of AMI). As stated in the City’s General Plan Housing Element (2013a), the maximum affordable purchase price of homes is more difficult to determine as compared to monthly affordable rent due to variations in mortgage interest rates and qualifying procedures, down payments, special tax assessments, homeowner association fees, property insurance rates, etc.

According to the City’s Housing Element, the City has an established RHNA goal to develop 177 new housing units by 2021. As shown in Table 4.14.A, 42 units are for very low-income, 29 units are for low-income, 33 units are for moderate-income, and 73 units are for above moderate-income households.

<table>
<thead>
<tr>
<th>Income Level</th>
<th>Units Required by RHNA</th>
<th>Units Provided by Year</th>
<th>Total Units Provided</th>
<th>Remaining Units Required by RHNA</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>2014</td>
<td>2015</td>
<td>2016</td>
</tr>
<tr>
<td>Very Low-Income</td>
<td>42</td>
<td>9</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Low-Income</td>
<td>29</td>
<td>6</td>
<td>22</td>
<td>-</td>
</tr>
<tr>
<td>Moderate-Income</td>
<td>33</td>
<td>16</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Above Moderate-Income</td>
<td>73</td>
<td>296</td>
<td>468</td>
<td>6</td>
</tr>
<tr>
<td>Total Units</td>
<td>177</td>
<td>327</td>
<td>493</td>
<td>7</td>
</tr>
</tbody>
</table>

Source: E-mail correspondence with Larry Longenecker, Planning Manager, Community Development Department, City of Mission Viejo (dated March 29, 2019).
RHNA = Regional Housing Needs Assessment

As shown in Table 4.14.A, the remaining units required to meet the City’s RHNA goals include 29 very low-income units, 1 low-income unit, and 17 moderate-income units. As stated previously, the Applicant proposes to include 17 moderate-income affordable units, which would help to meet the City’s current housing needs and would satisfy the 17 remaining moderate-income affordable units required by RHNA.

The proposed project is located in a developed portion of Mission Viejo and is surrounded by residential and commercial uses. The proposed project does not propose to expand surrounding utility infrastructure (e.g., water, electricity, cell tower, gas, sanitary sewer, and stormwater drains) in the project vicinity. All on-site systems, which would be provided and maintained by the property owner, would connect to existing infrastructure on Los Alisos Boulevard. In addition,
vehicular access to the project is proposed via an easement connecting to Los Alisos Boulevard. Consequently, because the project proposes development in an already built-out neighborhood, it would not indirectly induce population growth through the extension of roads or other infrastructure. Further, the proposed project would not create employment opportunities that could induce population growth.

The increase in population resulting from the proposed project would be within the planned population estimates for Mission Viejo. Moreover, with the provision of the proposed 17 moderate-income affordable units, the project would help the City meet its current housing needs and RHNA goals. Additionally, the project would not include infrastructure to facilitate growth elsewhere within Mission Viejo. Therefore, potential impacts related to inducement of unplanned population growth, either directly or indirectly, would be less than significant. No mitigation would be required.

(b) Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

No Impact. The proposed project includes demolition of an existing multi-tenant commercial building and construction of 105 new residential units on the project site. No housing is currently present on the project site, and therefore, there are no people living on the project site that would be displaced by the demolition of the existing structures. The proposed project would not displace any existing people or housing, and there are no residential uses currently on the project site. Conversely, the project would result in the development of 105 new residential units. Therefore, there would be no impacts related to the displacement of substantial numbers of housing units, and no mitigation would be required.
### 4.15 PUBLIC SERVICES

<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) 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>

#### 4.15.1 Impact Analysis

(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:

(i) **Fire protection?**

**Less Than Significant Impact.** OCFA would provide fire protection services to the project site. OCFA provides fire protection, emergency medical and rescue services, hazardous materials inspection and response, and public education activities to its service area’s approximately 1.8 million residents throughout 23 cities and unincorporated Orange County. Currently, OCFA has a total of 72 stations in Orange County and 3 stations within Mission Viejo itself (OCFA 2018b). The project site is within OCFA’s Division 3, Battalion 7 (OCFA 2018h). The closest fire stations to the project site are Fire Station No. 31, located at 22426 Olympiad Road (approximately 1.3 mi south of the site), and Fire Station No. 45, located at 30131 Aventura in neighboring Rancho Santa Margarita (approximately 1.9 mi southeast of the site). Due to its proximity to the project site, Fire Station No. 31 would likely serve the site.

In Fiscal Year 2017/2018, OCFA had 1,378 full-time-equivalent uniformed and civilian personnel budgeted (OCFA 2018h). OCFA is divided into six primary departments: Business Services, Communications and Public Affairs, Community Risk Reduction, Human Resources, Operations, and Support Services. The Operations Department comprises seven divisions and nine battalions that provide regional emergency response to all fires, rescues, hazardous materials incidents, wildland fires, aircraft fire and rescue services to John Wayne Airport, and other miscellaneous emergencies (OCFA 2018g). The Support Service Department provides...
essential support functions to all departments of OCFA, including coordinating all facilities maintenance, repairs, and construction; automotive and fleet maintenance, repairs, and acquisitions; development, operation, maintenance, and security of OCFA’s computers and technical infrastructure; and operations of the Emergency Command Center (OCFA 2018i). The Community Risk Reduction Department’s responsibilities include adopting and enforcing codes and ordinances relative to fire and life safety issues; reviewing plans and conducting inspections of construction projects; coordinating annual life safety inspections of all existing commercial buildings; providing long-range analysis of impacts on resources associated with future land use and development; and investigating fires (OCFA 2018e). The Communications and Public Affairs Department is responsible for both internal and external communications for OCFA (OCFA 2018d). The Business Services Department provides budget, payroll, accounting, and administrative support to OCFA; monitors cash balances, makes investments, and coordinates the annual Tax and Revenue Anticipation Note (TRAN); and provides warehouse, purchasing, shipping and receiving, and mail operations (OCFA 2018c). Finally, the Human Resources Department works with OCFA employees to administer employee benefits, uphold merit principles, and ensure compliance with legal and contractual obligations (OCFA 2018f).

According to the OCFA’s 2017 Statistical Annual Report, OCFA responded to over 141,858 total calls for service; a total of 7,968 calls were responded to citywide. Approximately 108,347 responses were related to emergency medical services (EMS); citywide, EMS responses totaled 6,299. OCFA’s average current response times are less than 7 minutes, ranging from 6 minutes, 58 seconds (80th percentile) to 9 minutes, 17 seconds (90th percentile) (OCFA 2018a).

According to the CAL FIRE and Resource Assessment Program, the project site is not within a VHFHSZ; however, a VHFHSZ within a Local Responsibility Area (LRA) is located north of SR-241 at the Upper Oso Reservoir and surrounding area (CAL FIRE 2018). The Upper Oso Reservoir area is not open to the public.

Emergency access to the project site would be provided via an easement connecting to an existing signalized intersection on Los Alisos Boulevard. As discussed in Section 4.17, Transportation/Traffic, the proposed project would not result in a substantial increase in traffic congestion or significant impacts at local intersections that would delay emergency vehicles. Therefore, the proposed project would not impair emergency response vehicles or increase response times.

As discussed in Section 4.14, Population and Housing, the proposed project would result in an increase of 105 residential units, which would add approximately 300 new residents and increase the number of on-site visitors and personnel. Construction and operation of the proposed project may result in increased demand for fire protection services. During construction, the project site would be fenced, which may result in limited effects on fire services. In addition, the operation of 105 residential units would result in a small increase in demand for fire protection services but would not trigger the need for new or altered facilities. No new facilities would be required to be constructed to accommodate the proposed project. Further, the proposed project would be required to comply with all Fire
Code requirements, and the proposed site plan would require approval by OCFA prior to project implementation.

The project would not impair emergency response vehicles or increase response times, and would not substantially increase calls for service, thereby triggering the need for new or altered facilities. Consequently, OCFA would be able to maintain current levels of service provided to the project site following project implementation. Therefore, potential impacts related to fire protection services would be less than significant. No mitigation would be required.

(ii) Police protection?

**Less Than Significant Impact.** Police protection and law enforcement services are provided to Mission Viejo by the Orange County Sheriff’s Department (OCSD). OCSD is currently divided into five Organizational Commands and 21 Divisions. The Executive Command includes Sheriff’s Executive Management and Public Affairs. The Administrative Services Command includes Communications and Technology, Financial and Administrative Services, Research and Development and Support Services. The Custody Operations and Court Services Command include the three jail facilities in Orange County and Inmate Services. The Field Operations and Investigative Services Command includes Airport Operations, Homeland Security, North and South Patrol Operations, Investigations, Coroner, Emergency Communications, Crime Lab, and Reserve and Volunteer Bureau. The Professional Services Command includes Court Operations; Professional Standards; the Strategy, Accountability, Focus, Evaluation (SAFE) Division; Training; and Community Programs (OCSD 2018a).

OCSD’s Southeast Operation Division provides law enforcement services to the three contract cities of Lake Forest, Mission Viejo, and Rancho Santa Margarita (OCSD 2018b) and would therefore be responsible for serving the project site. The Southeast Operations Division provides law enforcement services to more than 280,753 residents and employs approximately 223 staff members, 168 of whom are sworn peace officers (OCSD 2018b). Consequently, the current officer-to-resident ratio for the Southeast Operation Division is approximately 0.6 officer per 1,000 residents.

Similar to Response 4.15(a), construction and operation of the proposed project may result in increased demand for police protection services. During construction, the project site would be fenced, which may result in limited effects on police services. In addition, the operation of the development would likely result in increased demand for police services compared to existing conditions. Crimes committed on the project site would be anticipated to be crimes that are typically associated with other residential land uses in the area (e.g., theft, grand theft, and vehicle theft). However, safety features have been incorporated into the proposed project (i.e., setbacks from the street, walkway and landscape lighting) to reduce the potential for crime on the project site.

Emergency access to the project site would be provided via an easement connecting to an existing signalized intersection on Los Alisos Boulevard. As discussed in Section 4.17, Transportation/Traffic, the proposed project would not result in a substantial increase in
traffic congestion or significant impacts at local intersections that would delay police vehicles. Therefore, the proposed project would not increase police response times.

As discussed in Section 4.14, Population and Housing, the proposed project would result in an increase of 105 residential units, which would add approximately 300 new residents and increase the number of on-site visitors and personnel. Based on the Southeast Operation Division’s current officer-to-resident ratio of 0.6 officer per 1,000 residents, the proposed project would result in an increased demand for less than 1 sworn officer. This increase would be minimal compared to the number of officers currently employed by OCSD and would not trigger the need for new or physically altered police facilities. Further, it should be noted that the proposed project would increase taxes generated by on-site uses, which could help fund any increases in police protection services.

As stated above, while the project would increase human activity on the project site and result in a minimal increase in demand for police services, the proposed project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities in order to maintain acceptable service ratios, response times, or other performance objectives for police protection.

Therefore, the proposed project would result in less than significant impacts to demand for police protection services and would not necessitate the need for new police facilities. No mitigation would be required.

(iii) Schools?

Less Than Significant Impact. Mission Viejo is served by the Saddleback Valley Unified School District (SVUSD). In the 2017–2018 school year, approximately 27,000 students from kindergarten through 12th grade were enrolled in one of SVUSD’s 35 public schools (California Department of Education 2018). SVUSD currently operates schools in Mission Viejo, as well as schools in Aliso Viejo, Irvine, Laguna Hills, Lake Forest, Rancho Santa Margarita, and the Foothill Ranch and Trabuco Canyon communities in unincorporated Orange County (SVUSD 2018d).

The project site would be served by the following public schools: Melinda Heights Elementary School, located at 21002 Rancho Trabuco, Rancho Santa Margarita (approximately 0.8 mi east of the project site); Rancho Santa Margarita Intermediate School, located at 21931 Alma Aldea, Rancho Santa Margarita (approximately 2.4 mi southeast of the project site); and Trabuco Hills High School, located at 27501 Mustang Run, Mission Viejo (approximately 1.1 mi west of the project site) (SVUSD 2018c).

A breakdown of the most current enrollment and capacities available within SVUSD are shown in Table 4.15.A.
Table 4.15.A: SVUSD Capacity and Student Enrollment (2017–2018)

<table>
<thead>
<tr>
<th>School Level</th>
<th>Facilities Capacity</th>
<th>Existing Enrollment in SVUSD</th>
<th>Excess/(Shortage) Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elementary Schools (grades K–6)</td>
<td>14,830</td>
<td>13,659</td>
<td>1,171</td>
</tr>
<tr>
<td>Middle Schools (grades 7–8)</td>
<td>4,995</td>
<td>4,191</td>
<td>804</td>
</tr>
<tr>
<td>High Schools (grades 9–12)</td>
<td>10,773</td>
<td>9,479</td>
<td>1,294</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>30,598</strong></td>
<td><strong>27,329</strong></td>
<td><strong>3,269</strong></td>
</tr>
</tbody>
</table>

Source: SVUSD. Residential Development School Fee Justification Study, Table 1 (April 2018).

K = Kindergarten
SVUSD = Saddleback Valley Unified School District

As shown in Table 4.15.A, during the 2017–2018 school year, SVUSD accommodated a total of 27,329 students in its elementary, intermediate, and high schools. SVUSD schools had a total enrollment capacity of 30,598 and an excess enrollment capacity of 3,269 (SVUSD 2018a).

As discussed in Section 3.13, Population and Housing, the proposed project involves the construction of 105 new residential units (44 single-family units and 61 multifamily units) and, consequently, would result in a population increase of approximately 300 residents. The increase in population would result in increased demand for schools in the project vicinity. SVUSD uses generation factors to determine the number of students per dwelling unit and uses different student generation rates for each school level for single-family and multifamily dwelling unit types (SVUSD 2018a). Tables 4.15.B and 4.15.C show student generation rates for single-family and multifamily dwelling units, respectively.

Table 4.15.B: New Students Generated by the Proposed Project: Single-Family Units

<table>
<thead>
<tr>
<th>School Level</th>
<th>Number of Single-Family Units</th>
<th>Generation Rate (Single-Family Detached Units)</th>
<th>SVUSD Students Added by Proposed Project</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elementary Schools (grades K–5)</td>
<td>44</td>
<td>0.1929</td>
<td>8.5</td>
</tr>
<tr>
<td>Middle Schools (grades 6–8)</td>
<td>44</td>
<td>0.0654</td>
<td>2.9</td>
</tr>
<tr>
<td>High Schools (grades 9–12)</td>
<td>44</td>
<td>0.1459</td>
<td>6.4</td>
</tr>
<tr>
<td><strong>Total (rounded to whole number)</strong></td>
<td><strong>18.0</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: SVUSD. Residential Development School Fee Justification Study, Table 3 (April 2018).

K = Kindergarten
SVUSD = Saddleback Valley Unified School District
Table 4.15.C: New Students Generated by the Proposed Project:
Multifamily Units

<table>
<thead>
<tr>
<th>School Level</th>
<th>Number of Multifamily Units</th>
<th>Generation Rate (Multifamily Units)</th>
<th>SVUSD Students Added by Proposed Project</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elementary Schools (grades K-5)</td>
<td>61</td>
<td>0.2315</td>
<td>14.1</td>
</tr>
<tr>
<td>Middle Schools (grades 6-8)</td>
<td>61</td>
<td>0.0595</td>
<td>3.6</td>
</tr>
<tr>
<td>High Schools (grades 9-12)</td>
<td>61</td>
<td>0.1222</td>
<td>7.5</td>
</tr>
<tr>
<td><strong>Total (rounded to whole number)</strong></td>
<td></td>
<td></td>
<td><strong>26.0</strong></td>
</tr>
</tbody>
</table>

Source: SVUSD. Residential Development School Fee Justification Study, Table 4 (April 2018).

K = Kindergarten
SVUSD = Saddleback Valley Unified School District

As shown in Tables 4.15.B and 4.15.C, single-family units would generate approximately 18 students and multifamily units would generate approximately 26 students, respectively. The project would generate a total of approximately 44 students. Therefore, the increase in students with project implementation would incrementally increase the demand for school facilities. As stated previously, SVUSD currently has an excess enrollment capacity of 3,269 seats. The total number of students generated by the proposed project represents approximately 1.3 percent of the excess enrollment capacity available, which would result in approximately 3,226 excess enrollment capacity following project implementation. Still, the increase in population as a result of the proposed project could strain existing and/or planned school facilities.

Pursuant to California Education Code Section 17620(a)(1), the governing board of any school district is authorized to levy a fee, charge, dedication, or other requirement against any construction within the boundaries of the district for the purpose of funding the construction or reconstruction of school facilities. Effective July 9, 2018, SVUSD developer fees totaled $3.79 per square foot of new residential construction (SVUSD 2018b). As a standard condition of project approval, the Applicant would be required to pay such fees to reduce any impacts of new residential development on school services (refer to Regulatory Compliance Measure RCM-PS-1, below). Pursuant to the provisions of Government Code Section 65995, a project’s impact on school facilities is fully mitigated through payment of the requisite school facility development fees current at the time a building permit is issued. Therefore, with the full payment of all applicable school fees, potential impacts to school services and facilities associated with implementation of the proposed project would be less than significant. No mitigation is required.

**Regulatory Compliance Measure.** No mitigation is required; however, Regulatory Compliance Measure RCM-PS-1 would be implemented to reduce project-related impacts to schools.

**RCM-PS-1 Payment of School Development Fee.** In accordance with California Education Code Section 17620(a)(1), prior to the issuance of building permits, the Project Applicant would be required to comply with the Saddleback Valley Unified School District (SVUSD) Developer Fee Program. The Project Applicant would be required to obtain certification of the payment of developer fees from SVUSD.
compliance with Chapter 9.92, Interim School Fees, of the Mission Viejo Municipal Code, the Director of the Community Development Department, or designee, would confirm that the Project Applicant has paid all applicable school facility development fees in accordance with California Government Code Section 65995.

(iv) Parks?

Less Than Significant Impact. The City’s Recreation and Community Services Department operates and manages parks and recreation facilities throughout Mission Viejo. According to the City’s General Plan Conservation and Open Space Element (2013d), Mission Viejo currently has a parkland-to-resident ratio of approximately 5 ac of usable parkland area per 1,000 residents (parkland includes public mini-, neighborhood, and community parkland that has been dedicated to the City). Other forms of parkland available in Mission Viejo include greenbelts, open space and linkages, joint-use parks with schools, trails, and private parkland. The City classifies parks in the following categories: mini-parks, which are 1 ac or less and have a service area radius of approximately 0.25 mi; neighborhood parks, which are up to 20 ac and have a service area radius of approximately 0.5 mi; community parks, which are 15 to 20 ac and have a service area radius of approximately 1 to 3 mi; and regional parks, which have no size constraints or service area standards. Overall, the City has approximately 2.3 ac of mini-parks, 174.2 ac of neighborhood parks, and 141.0 ac of community parks, for a total of 317.5 ac of parkland. Based on the City’s estimated population of 95,987 in 2018 (California Department of Finance 2018) and the parkland-to-resident ratio, the City currently provides 3.3 ac of parkland per 1,000 residents. Therefore, the City is not currently meeting its parkland standard of 5 ac per 1,000 residents.

Multiple parks and recreational facilities are located within the service area of the project site (refer to Section 4.16, Recreation, for an overview of parks and recreational facilities that serve the project area). Although there are many diverse park facilities within the project vicinity, the project-related increase in population could incrementally increase the use of existing neighborhood and community parks within Mission Viejo.

As discussed in Section 4.14, Population and Housing, the proposed project involves the construction of 105 new residential units. Consequently, the project would result in a population increase of approximately 300 residents. As stated previously, the City’s parkland-to-resident ratio is 5 ac of parkland to 1,000 residents. As such, the project would create the need for approximately 1.5 ac of parkland, which represents approximately 0.5 percent of the City’s total existing 317.5 ac of parkland. As such, the project would incrementally increase the need for park facilities in Mission Viejo. However, this increase would be negligible as it represents less than 1 percent of the City’s existing parkland.

In addition, approximately 8,780 sf of shared recreational area would be included as part of the project. On-site recreational amenities would include a community recreation area consisting of a pool, sitting areas, restrooms, and other amenities, including a walking loop and central walkway, gathering spaces, barbecues, and a playground. Residents are anticipated to utilize the on-site recreational amenities and open space to a greater degree.
than off-site facilities due to convenience and proximity. In this way, the project’s provision of on-site open space and recreational facilities would reduce the use of area parks by project residents. Nevertheless, some project residents would still be expected to utilize other public recreational facilities. As a result, the proposed project would create an incremental increase in the use of area parks.

Section 66477 of the California Government Code (also known as the Quimby Act) was enacted to promote the availability of park and open space areas in response to the State’s rapid urbanization and decreasing acreage of parks and recreational facilities. The goal of the Quimby Act is to require developers to mitigate the impacts of property development and fund parkland improvements. The act gives authority for the passage of land dedication ordinances only to cities and counties. Special districts must work with cities and/or counties to receive parkland dedication and/or in-lieu fees. The in-lieu fees are paid and land conveyed directly to the local public agencies that provide park and recreation services on a communitywide basis. In 1982, the Quimby Act was amended to hold local governments accountable for imposing park development fees. AB 1600 requires agencies to clearly show a reasonable relationship between the public need for the recreation facility or parkland and the type of development project upon which the fee is imposed. Cities and counties were required to be more accountable and to show a strong direct relationship or nexus between the park fee exactions and the proposed project. Local ordinances must now include definite standards for determining the proportion of the subdivision to be dedicated and the amount of the fee to be paid.

Chapter 9.85, Local Park Code, of the City’s Municipal Code requires the dedication of land or the payment of in-lieu fees for park and recreational purposes as a condition to the approval for a residential project. As stipulated in Section 9.85.070, Amount of Park Land Required, the requirement for parkland dedication is 0.01 usable acres of parkland per proposed residential dwelling unit; as such, the proposed project would be required to pay in-lieu park fees to the City based on 1.05 ac of required parkland.¹ As a standard condition of project approval, the proposed project would be required to pay in-lieu park fees to the City (refer to Regulatory Compliance Measure RCM-PS-2, below). Overall, 105 units would be subject to the City’s park fee, which would be used for the purpose of acquiring, expanding, and improving parks and recreational facilities for new residents in Mission Viejo. Therefore, with the payment of park fees, the project’s contribution to deterioration of parks and recreational facilities would be less than significant. No mitigation is required.

Regulatory Compliance Measure. No mitigation is required; however, Regulatory Compliance Measure RCM-PS-2 would be implemented to reduce project-related impacts to neighborhood and regional parks.

RCM-PS-2 Payment of Park Fee. In compliance with the Mission Viejo Municipal Code, Chapter 9.85, Local Park Code, prior to the issuance of building permits, the Project Applicant would be required to submit the Tentative Tract Map for reviewed by the Planning Commission. Approval of the payment of park fees

¹ Calculation: 0.01 ac of parkland x 105 proposed dwelling units = 1.05 ac of dedicated parkland
would be made by the Planning Commission prior to or concurrently with the approval of the Tentative Tract Map, and such approval would be included as conditions of approval of the project.

(v) Other public facilities?

Less Than Significant Impact. Mission Viejo Library is located at the Civic Center (100 Civic Center), approximately 4.5 mi southwest of the project site, and is operated by the City. It is the City’s only library. Amenities include public community meeting spaces and study rooms, public-use computers and internet access, and programs such as tutoring and after-school clubs (Mission Viejo Library 2018).

OC Public Libraries (OCPL) has a network of 33 libraries throughout Orange County (OCPL 2018), and two OCPL branches are located in the project vicinity. Rancho Santa Margarita Library is located at 30902 La Promesa, Rancho Santa Margarita, approximately 2.3 mi southeast of the project site. Foothill Ranch Library is located at 27002 Cabriole Way, Lake Forest, approximately 2.5 mi northwest of the project site. While these libraries are not within Mission Viejo, due to their proximity, it is reasonable to conclude that they would also serve the project site.

As discussed in Section 4.14, Population and Housing, the proposed project involves the construction of 105 new residential units and, consequently, would result in a population increase of approximately 300 residents. As such, implementation of the proposed project would incrementally increase demand for library services. However, the impact of new residents would not significantly affect Mission Viejo Library or OCPL performance and would not require the expansion of libraries within Mission Viejo and surrounding areas. Therefore, the proposed project would have a less than significant impact on other public facilities (i.e., libraries), and no mitigation would be required.
4.16 RECREATION

<table>
<thead>
<tr>
<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) 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>
</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>
</tr>
</tbody>
</table>

4.16.1 Impact Analysis

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

**Less Than Significant Impact.** The City’s Recreation and Community Services Department operates and manages parks and recreation facilities throughout Mission Viejo. According to the City’s General Plan Conservation and Open Space Element (2013d), the City currently has a parkland-to-resident ratio of approximately 5 ac of usable parkland area per 1,000 residents (parkland includes public mini-, neighborhood, and community parkland that has been dedicated to the City). Other forms of parkland available in Mission Viejo include greenbelts, open space and linkages, joint-use parks with schools, trails, and private parkland. The City classifies parks in the following categories: mini-parks, which are 1 ac or less and have a service area radius of approximately 0.25 mi; neighborhood parks, which are up to 20 ac and have a service area radius of approximately 0.5 mi; community parks, which are 15 to 20 ac and have a service area radius of approximately 1 to 3 mi; and regional parks, which have no size constraints or service area standards. Overall, the City has approximately 2.3 ac of mini-parks, 174.2 ac of neighborhood parks, and 141.0 ac of community parks, for a total of 317.5 ac of parkland. Based on the City’s estimated population of 95,987 in 2018 (California Department of Finance 2018) and the parkland-to-resident ratio, the City currently provides 3.3 ac of parkland per 1,000 residents. Therefore, the City is not currently meeting its parkland standard of 5 ac per 1,000 residents.

Based on the City’s park classifications and service areas, the parks listed in Table 4.16.A would serve the project site. However, all parks in Mission Viejo could be affected because residents would be able to use any park and recreation facility anywhere in the project vicinity.
Table 4.16.A: Parks and Recreational Facilities in the Project Vicinity

<table>
<thead>
<tr>
<th>Name and Address</th>
<th>Distance from Project Site (miles)</th>
<th>Type</th>
<th>Size (acres)</th>
<th>Amenities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pinecrest Park 21310 Pinecrest Mission Viejo, CA 92692</td>
<td>0.4</td>
<td>Neighborhood</td>
<td>15.3</td>
<td>Softball field, soccer/football field, play equipment, picnic tables, barbeques, and walking trail</td>
</tr>
<tr>
<td>Eastbrook Park 21530 Eastbrook Mission Viejo, CA 92692</td>
<td>0.5</td>
<td>Neighborhood</td>
<td>4.8</td>
<td>Soccer/football field, play equipment, picnic tables, barbeques, and walking trail</td>
</tr>
<tr>
<td>Melinda Park 28951 Melinda Road Mission Viejo, CA 92692</td>
<td>0.5</td>
<td>Neighborhood</td>
<td>8.3</td>
<td>Softball field, soccer/football field, basketball court, play equipment, picnic structure and tables, and barbeques</td>
</tr>
<tr>
<td>Marty Russo Youth Athletic Park 22056 Olympiad Road Mission Viejo, CA 92692</td>
<td>1.1</td>
<td>Community</td>
<td>41.2</td>
<td>Baseball fields, soccer/football fields, batting cages, restrooms, picnic structures and tables, and barbeques</td>
</tr>
<tr>
<td>O’Neill Regional Park¹ 30892 Trabuco Canyon Road Trabuco Canyon, CA 92679</td>
<td>1.3</td>
<td>Regional</td>
<td>4,500.0</td>
<td>Amphitheater; barbeques; fire pits; horseshoe pits; play equipment; camping areas; bicycle, pedestrian, and equestrian trails; picnic structures and tables; restrooms and showers; and scenic overlooks</td>
</tr>
<tr>
<td>Lake Mission Viejo² 22555 Olympiad Road Mission Viejo, CA 92691</td>
<td>1.4</td>
<td>Community</td>
<td>60.0</td>
<td>Boating, picnic tables, and walking trail</td>
</tr>
<tr>
<td>William M. Beebe Park 24190 Olympiad Road Mission Viejo, CA 92692</td>
<td>3.0</td>
<td>Community</td>
<td>9.8</td>
<td>Baseball field, soccer/football field, skate park, restrooms, picnic tables, and walking trail</td>
</tr>
</tbody>
</table>

1 O’Neill Regional Park is operated by the County of Orange.
2 Lake Mission Viejo is privately owned and operated.

As shown in Table 4.16.A, there are three neighborhood parks within 0.5 mi of the project site (Pinecrest Park, Eastbrook Park, and Melinda Park) and three community parks within 3.0 mi of the project site (Marty Russo Youth Athletic Park, Lake Mission Viejo [privately owned and operated], and William M. Beebe Park). O’Neill Regional Park is operated by OC Parks, the County’s Park Department. Although there are many diverse park facilities within the project vicinity, the project-related increase in population could incrementally increase the use of existing neighborhood and community parks within Mission Viejo.

As discussed in Section 4.14, Population and Housing, the proposed project involves the construction of 105 new residential units and, consequently, would result in a population increase of approximately 300 residents. As stated previously, the City’s parkland-to-resident ratio is 5 ac of parkland to 1,000 residents. As such, the project would create the need for approximately 1.5 ac of parkland, which represents approximately 0.5 percent of the City’s total existing 317.5 ac of parkland. As such, the project would incrementally increase the need for park facilities in Mission
Viejo. However, this increase would be negligible as it represents less than 1 percent of the City’s existing parkland.

Approximately 8,780 sf of shared recreational area would also be included as part of the project. On-site recreational amenities would include a community recreation area consisting of a pool, sitting areas, restrooms, and other amenities, including a walking loop and central walkway, gathering spaces, barbeques, and a playground. Residents are anticipated to utilize the on-site recreational amenities and open space to a greater degree than off-site facilities due to convenience and proximity. In this way, the project’s provision of on-site open space and recreational facilities would reduce the use of area parks by project residents. Nevertheless, some project residents would still be expected to utilize other public recreational facilities. As a result, the proposed project would create an incremental increase in the use of area parks.

Section 66477 of the California Government Code (also known as the Quimby Act) was enacted to promote the availability of park and open space areas in response to the State’s rapid urbanization and the decreasing acreage of parks and recreational facilities. The goal of the Quimby Act is to require developers to mitigate the impacts of property development and fund parkland improvements. The act gives authority for the passage of land dedication ordinances only to cities and counties. Special districts must work with cities and/or counties to receive parkland dedication and/or in-lieu fees. The in-lieu fees are paid and land conveyed directly to the local public agencies that provide park and recreation services on a communitywide basis. In 1982, the Quimby Act was amended to hold local governments accountable for imposing park development fees. AB 1600 requires agencies to clearly show a reasonable relationship between the public need for the recreation facility or parkland and the type of development project upon which the fee is imposed. Cities and counties were required to be more accountable and to show a strong direct relationship or nexus between the park fee exactions and the proposed project. Local ordinances must now include definite standards for determining the proportion of the subdivision to be dedicated and the amount of the fee to be paid.

Chapter 9.85, Local Park Code, of the City’s Municipal Code requires the dedication of land or the payment of in-lieu fees for park and recreational purposes as a condition to the approval for a residential project. As stipulated in Section 9.85.070, Amount of Park Land Required, requirement for parkland dedication is 0.01 usable acres of parkland per proposed residential dwelling unit; as such, the proposed project would be required to pay in-lieu park fees to the City based on 1.05 ac of required parkland. As discussed in Section 4.15, Public Services, the project would be required to pay in-lieu park fees to the City as a standard condition of project approval (refer to Regulatory Compliance Measure RCM-PS-2). Overall, 105 units would be subject to the City’s park fee, which would be used for the purpose of acquiring, expanding, and improving parks and recreational facilities for new residents in Mission Viejo. Therefore, with the payment of park fees, the project’s contribution to deterioration of parks and recreational facilities would be less than significant. No mitigation is required.
(b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

**Less Than Significant Impact.** The proposed project would include 8,780 sf of shared recreational area, consisting of a pool, sitting areas, a walking loop and central walkway, gathering spaces, barbeques, and a playground for use by residents within the complex. In addition, private patio and yard open space would be available to residents in designated floor plans.

The construction of open space is part of the proposed project, and the potential adverse effects associated with implementation of the proposed project have been considered throughout the analysis in this IS. Therefore, the proposed project does not include recreational facilities that would have an adverse physical effect on the environment, and no mitigation would be required.

**Regulatory Compliance Measure.** No mitigation is required; however, Regulatory Compliance Measure RCM-PS-2, presented in Section 4.15, Public Services, would be implemented to reduce project-related impacts to neighborhood and regional parks.
4.17 TRANSPORTATION/TRAFFIC

<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 a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>(b) Conflict or be inconsistent with CEQA Guidelines Section 15064.3, Subdivision (b)?</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>(c) Substantially increase hazards due to a geometric 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>(d) Result in inadequate emergency access?</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
</tr>
</tbody>
</table>

4.17.1 Impact Analysis

(a) Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

Less Than Significant Impact. The proposed project involves the redevelopment of a commercial building to a 105-unit residential development. As discussed in Section 4.14, Population and Housing, the project is anticipated to result in a population increase of approximately 300 people. The primary patrons of the proposed residential development will be residents and their visitors. Vehicular trips associated with the proposed project would contribute to congestion at intersections and along roadway segments in the project vicinity. According to the Trip Generation Analysis (LSA 2019b) (Appendix G of this IS/MND) prepared for the project, it was estimated that the 105 residential units would generate approximately 862 average daily trips (ADT). Because the existing commercial building is mostly vacant today, the proposed project would generate more traffic than is currently experienced at the commercial center driveways. However, it should be noted that the trip generation potential of the existing commercial building is greater than the trip generation potential of the proposed project. The project is estimated to generate 33 fewer trips in the a.m. peak hour and 301 fewer trips in the p.m. peak hour as compared to the existing commercial building at full occupancy.

Los Alisos Boulevard, which is the main roadway serving the project site, is considered a secondary arterial. Vehicular access to the project site would be provided via an easement and internal road connecting to Los Alisos Boulevard. Vehicular traffic to and from the project site would utilize the existing network of regional and local roadways that currently serve the project area. The proposed project includes an internal private road that would provide resident access to residential units. As such, the proposed project would not introduce any new roadways or land uses that would interfere with adopted plans, programs, ordinances, or policies regarding roadway facilities.
Nonmotorized access to the project site is currently provided via public sidewalks along Los Alisos Boulevard that connect to the existing commercial complex. Bicycle access to/from the project site is also available via Los Alisos Boulevard via a Class II bicycle lane and adjacent local streets. In the project vicinity, OCTA currently operates Route 82 via Santa Margarita Parkway, running from the communities of Foothill Ranch to Rancho Santa Margarita (OCTA 2018). In addition, OCTA operates MV Shuttle Route 182, which includes three routes in the central and southern portions of Mission Viejo (City of Mission Viejo 2018b). The project would not include improvements to public pedestrian facilities. Instead, the proposed project would include sidewalks along private internal roadways, which would provide residents access to adjacent commercial uses. Currently, the City's Municipal Code does not require bicycle parking facilities for residential uses. As such, the project would not be required to provide bicycle parking facilities. In addition, mass transit would not be affected by project implementation. Therefore, the proposed project would not conflict with adopted plans, programs, ordinances, or policies regarding public transit, bicycle, or pedestrian facilities.

The City’s General Plan Circulation Element (2013c) is intended to guide the development of the City’s circulation system in order to address demands and achieve balanced growth. The Circulation Element outlines specific goals and policies regarding performance of the circulation system (levels of service) and the different transportation strategies that can be utilized to maintain performance goals. The proposed project would be required to be consistent with the goals and policies outlined in the Circulation Element.

Title 12, Traffic, of the City’s Municipal Code serves as the traffic ordinance for Mission Viejo and therefore establishes specific legal and organizational authority for traffic management and regulatory enforcement of use within the public right-of-way. Chapter 12.20, Transportation Demand Management Requirements, stipulates that transportation demand management requirements do not apply to residential uses. The proposed project would be required to adhere to all regulations outlined in the City’s Municipal Code.

The 2017 Orange County Congestion Management Program (OCTA 2017) implements federal Congestion Management Program requirements, which is a systematic and regionally accepted approach for managing congestion. Appendix B-2 of the 2017 CMP provides criteria for projects not requiring additional analysis of traffic impacts to CMP-monitored facilities. According to the criteria, projects generating fewer than 2,400 daily trips are below the threshold for a CMP analysis. The reason given is that below this threshold, project traffic could not trigger a significant impact, which is defined as using 3 percent or more of existing capacity. As stated previously, the addition of 105 residential units is anticipated to generate approximately 862 ADT, which is significantly less than the 2,400 daily trips given as the threshold for a CMP analysis. As such, the project does not meet the established threshold for analyzing CMP facilities.

The proposed project would be required to adhere to policies in the City’s General Plan Circulation Element, as well as regulations outlined in Title 12 of the Municipal Code. In addition, the project does not meet the established threshold for analyzing CMP facilities because it generates fewer than 2,400 daily trips. Further, final design of the proposed project would be subject to review by the Traffic Engineer, or designee, at the City’s Department of Public Works. Therefore, the proposed project would result in a less than significant impact related to conflicts with an...
applicable plan, program, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities. No mitigation would be required.

(b) Conflict or be inconsistent with CEQA Guidelines Section 15064.3, Subdivision (b)?

**Less Than Significant Impact.** Section 15064.3 of the *State CEQA Guidelines* codifies that project-related transportation impacts are typically best measured by evaluating the project’s vehicle miles travelled (VMT). Specifically, subdivision (b) focuses on specific criteria related to transportation analysis and is divided into four subdivisions: (1) land use projects, (2) transportation projects, (3) qualitative analysis, and (4) methodology. Subdivision (b)(1) provides guidance on determining the significance of transportation impacts of land use projects using VMT; projects located within 0.5 mile of transit should be considered to have a less than significant impact. Subdivision (b)(2) addresses VMT associated with transportation projects and states that projects that reduce VMT, such as pedestrian, bicycle, and transit projects, should be presumed to have a less than significant impact. Subdivision (b)(3) acknowledges that Lead Agencies may not be able to quantitatively estimate VMT for every project type; in these cases, a qualitative analysis may be used. Subdivision (b)(4) stipulates that Lead Agencies have the discretion to formulate a methodology that would appropriately analyze a project’s VMT.

The proposed project is considered a land use project and is not within 0.5 mile of transit. As such, analysis of project impacts related to VMT is required per Section 15064.3 of the *State CEQA Guidelines*. Using the ADT established in the *Trip Generation Analysis*, the California Emissions Estimator Model (CalEEMod) was used to determine existing and post-project VMT. Under existing conditions, it was estimated that the commercial building has an annual VMT of 758,404 per capita. Additionally, it was estimated that the project would have an annual VMT of 2,945,175 per capita. Compared to existing conditions, the proposed project would generate a higher annual VMT per capita. However, the City does not currently have thresholds or standards in place for analyzing VMT impacts. As such, the VMT analysis provided in this section is for informational purposes. The project would be consistent with *State CEQA Guidelines* Section 15064.3. Therefore, implementation of the proposed project would result in less than significant VMT impacts, and no mitigation would be required.

(c) Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

**Less Than Significant Impact.** Vehicular access to the project site would be provided via an easement and internal private road connecting to Los Alisos Boulevard. Vehicular traffic to and from the project site would utilize the existing network of regional and local roadways that currently serve the project site area. The proposed project would not introduce any new roadways or introduce a land use that would conflict with existing urban land uses in the surrounding area. The proposed project includes an internal private road that would provide resident access to residential units. Design of the proposed project, including the internal private roadway, ingress, egress, and other streetscape changes, would be subject to review by the City’s Department of

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1 California Emissions Estimator Model (CalEEMod). Compiled by LSA (March 2019).
2 Ibid.
Public Works. Therefore, the proposed project would not substantially increase hazards due to a geometric design feature (e.g., sharp curve or dangerous intersection) or incompatible uses (e.g., farm equipment), and no mitigation would be required.

(d) Would the project result in inadequate emergency access?

**Less Than Significant Impact.** Emergency access to the project site would be provided by an easement and internal roads connecting to Los Alisos Boulevard. Access to/from the site must be designed to City standards and would be subject to review by OCFA and OCSD for compliance with fire and emergency access standards and requirements. Therefore, approval of the project plans would ensure that the proposed project’s impact related to emergency access would be less than significant, and no mitigation would be required.
4.18 TRIBAL CULTURAL RESOURCES

<table>
<thead>
<tr>
<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>
</table>

(a) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

(i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k), or


(ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe

4.18.1 Impact Analysis:

(a) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

(i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k)?

**Less Than Significant Impact.** The project would be required to comply with AB 52 and SB 18 regarding tribal consultation. Chapter 532, Statutes of 2014 (i.e., AB 52), requires that Lead Agencies evaluate a project’s potential to impact “tribal cultural resources.” Such resources include sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are eligible for inclusion in the California Register or included in a local register of historical resources (PRC Section 21074). AB 52 also gives Lead Agencies the discretion to determine, supported by substantial evidence, whether a resource falling outside the definition stated above nonetheless qualifies as a “tribal cultural resource.”
Also, per AB 52 (specifically, PRC Section 21080.3.1), as Lead Agency, the City must consult with California Native American tribes that are traditionally and culturally affiliated with the geographic area of the project and have previously requested that the Lead Agency provide them with notice of such projects.

SB 18 requires cities and counties acting as Lead Agency to contact and consult with California Native American tribes before adopting or amending a General Plan. The intent of SB 18 is to establish meaningful consultation between tribal governments and local governments at the earliest possible point in the planning process and to enable tribes to manage “cultural places.” Cultural places are defined as a Native American sanctified cemetery, place of worship, religious or ceremonial site, or sacred shrine (PRC Section 5097.9), or a Native American historic, cultural, or sacred site, that is listed or may be eligible for listing in the California Register, including any historic or prehistoric ruins, any burial ground, or any archaeological or historic site (PRC Section 5097.993).

As discussed in Section 4.5, Cultural Resources, Response 4.5(a), the project site does not contain any buildings or structures that meet any of the California Register criteria or qualify as “historical resources” as defined by CEQA. Further, the project site is not designated as a historical/archaeological landmark by the City or the County. Therefore, the proposed project would not cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5 of the State CEQA Guidelines or PRC Section 5020.1(k).

The City requested a search of the Sacred Lands File by the Native American Heritage Commission (NAHC) for the proposed project site. On March 19, 2019, the search was completed with negative results for the presence of tribal cultural resources. The results of the record search conducted at the South Central Coastal Information Center indicate that no cultural resources exist within the proposed project site. The entire proposed project site was included as part of archaeological monitoring for the existing commercial development, and no cultural resources were encountered during the archaeological monitoring. The soils on the proposed project site are nonnative and have been disturbed previously during excavation and construction of the site’s existing commercial use.

In compliance with AB 52 and SB 18, letters have been distributed to the following local Native American tribes as recommended by the NAHC:

- Agua Caliente Band of Cahuilla Indians, Jeff Grubbe, Chairperson.
- Juaneño Band of Mission Indians, Sonia Johnston, Chairperson.
- Juaneño Band of Mission Indians Acjachemen Nation, Matias Belardes, Chairperson.
- La Jolla Band of Luiseño Indians, Fred Nelson, Chairperson.
- Pala Band of Mission Indians, Robert Smith, Chairperson.
- Pauma Band of Luiseño Indians, Temet Aguilar, Chairperson.
The letters (provided in Appendix H of this IS/MND) provide each tribe of the opportunity to request consultation with the City regarding the project. In compliance with AB 52, tribes have 30 days from the date of receipt of notification to request consultation on the project. SB 18 mandates that tribes receive 45 days from the date of receipt of notification to request consultation on the project. Information provided through tribal consultation will inform the assessment as to whether the tribes believe any tribal cultural resources are present on the project site.

Due to the developed nature of the project site, it is unlikely that tribal cultural resources are present. However, as stated above, tribal consultation is ongoing as part of the CEQA process in compliance with AB 52 and SB 18. In the event that tribal cultural resources are identified during the tribal consultation process, the City will work with the tribes to address their concerns.

(ii) Would the project be a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

Less Than Significant Impact. See Response 4.18(a), above. In compliance with AB 52 and SB 18, tribal consultation has been initiated as part of the CEQA process. Information provided through tribal consultation will inform the assessment as to whether the tribes believe any tribal cultural resources are present and the significance of any potential impacts to such resources. Therefore, in the event that tribal cultural resources are identified during the tribal consultation process, the City will work with the tribes to address their concerns.
4.19 UTILITIES/SERVICE SYSTEMS

<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) Require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
<td>☐</td>
</tr>
<tr>
<td>(b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
<td>☐</td>
</tr>
<tr>
<td>(c) 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>
<td>☒</td>
<td>☐</td>
</tr>
<tr>
<td>(d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
<td>☐</td>
</tr>
<tr>
<td>(e) Comply with federal, State, and local management and reduction statutes and regulations related to solid wastes?</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
<td>☐</td>
</tr>
</tbody>
</table>

4.19.1 Impact Analysis

(a) Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities or expansion of existing facilities, the construction or relocation of which could cause significant environmental effects?

Less Than Significant Impact.

Water. Delivery of domestic water service in Mission Viejo is provided by SMWD. According to the 2015 Urban Water Management Plan (UWMP), SMWD’s primary sources of water supply are a combination of imported water, urban runoff, purchased groundwater, and recycled water. To meet the population’s water needs, SMWD imports water through two primary agencies: Metropolitan Water District of Southern California (MWD) and Municipal Water District of Orange County (MWDOC). In 2015, SMWD’s total water supply was approximately 78 percent imported water and 22 percent recycled water; no groundwater was used in 2015. By 2040, SMWD’s water supply portfolio is projected to consist of 41 percent MWD-treated water, 13 percent alternative-sourced water, 13 percent local groundwater, and 29 percent recycled water for irrigation (SMWD 2016).

Water demand associated with the proposed project would be typical of residential water usage in Mission Viejo. The project site contains existing water services in support of the existing commercial building, but services will need to be extended to the point of connections for the
newly developed residential development. According to the 2015 UWMP, SMWD’s projected water supply is able to meet projected water demands in the years 2020, 2025, 2030, 2035, and 2040 during normal years, single dry years, and multiple dry years. In 2015, the actual water supply was 34,405 acre-feet (af). The total projected water supply in 2020 is approximately 40,785 af annually. In 2040, the total projected water supply is 39,715 af annually, with supply totals decreasing in every 5-year increment between 2020 and 2040. Although projected water supplies decrease incrementally, projected water demand also decreases incrementally. In 2015, the actual water demand was 26,910 af. The total projected water demand in 2020 is approximately 37,273 af annually. In 2040, the total projected water demand is 36,210 af annually, with demand totals decreasing in every 5-year increment between 2020 and 2040. The City’s water supplies are projected to meet full service demands due to projected increases in efficiency, water conservation, and expansion of recycled water services (SMWD 2016).

The proposed project is anticipated to use approximately 30,559 gpd of water. A majority of the existing commercial building is currently vacant, which contributes to the building’s relatively low water usage of 3,699 gpd. Compared to the existing commercial building, the project would result in an increase of 26,860 gpd of water usage. However, it should be noted that the proposed project’s water usage would be less than the water usage of the commercial building if the building were fully occupied as permitted. Although the proposed project would result in an increase in water usage, the total amount of anticipated water usage by the project represents approximately 0.1 percent of the 2015 water in SMWD’s service area. Consequently, anticipated water usage by the proposed project is negligible (less than 1 percent) compared to SMWD’s water supply. Therefore, implementation of the proposed project would not require or result in the relocation or construction of new or expanded water treatment facilities, and no mitigation would be required.

**Wastewater.** SMWD provides water and wastewater treatment services to approximately 160,000 customers in Mission Viejo and Rancho Santa Margarita, as well as in unincorporated Orange County. SMWD operates and maintains approximately 630 mi of sanitary sewer lines within its service area and delivers over 9 million gallons per day (mgd) of wastewater to SMWD facilities for treatment (SMWD 2018). The project is within SMWD’s service area.

The majority of wastewater generated by Mission Viejo is delivered to the OCWRP, the 3AWRP, and the J.B. Latham Treatment Plant. Additionally, approximately 670,000 gpd of wastewater generated in the northeast portion of Mission Viejo, where the project site is located, is sent to the Los Alisos Water Recycling Plant. Table 4.19.A shows wastewater treatment facility capacities available to the City.

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1 California Emissions Estimator Model (CalEEMod). Compiled by LSA (March 2019).
2 Ibid.
3 Calculations: [Part 1]: 34,405 af annual supply / 365 days = 94.26 af per day.
   [Part 2]: 94.26 af per day converted to gpd = 30,714,710 gpd.
   [Part 3]: 30,559 gpd project water demand / 30,714,710 gpd supply = 0.1 percent.
Table 4.19.A: Wastewater Treatment Plant Capacities

<table>
<thead>
<tr>
<th>Wastewater Treatment Plant</th>
<th>Water District Operator</th>
<th>Capacity Allocated to the City</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oso Creek Water Reclamation Plant</td>
<td>Santa Margarita Water District</td>
<td>3.0 mgd</td>
</tr>
<tr>
<td>3A Water Reclamation Plant</td>
<td>Santa Margarita Water District/Moulton Niguel Water District</td>
<td>2.4 mgd</td>
</tr>
<tr>
<td>J.B. Latham Treatment Plant</td>
<td>Southern Orange County Wastewater Authority</td>
<td>2.2 mgd</td>
</tr>
<tr>
<td>Los Alisos Water Recycling Plant</td>
<td>Irvine Ranch Water District</td>
<td>0.7 mgd</td>
</tr>
<tr>
<td><strong>Total Wastewater Capacity Allocated to the City</strong></td>
<td></td>
<td><strong>8.3 mgd</strong></td>
</tr>
</tbody>
</table>

mgd = million gallons per day
SMWD = Santa Margarita Water District

The CWRP is owned and operated by SMWD and has a design capacity of 3 mgd. The 3AWRP is jointly owned by SMWD and Moulton Niguel Water District (MNWD); flows exceeding 2.4 mgd bypass 3AWRP and flow to the J.B. Latham Treatment Plant. The J.B. Latham Treatment Plant is a 13 mgd wastewater treatment plant that is owned and operated by the Southern Orange County Wastewater Authority (SOCWA); SMWD is allowed up to 2.2 mgd of capacity at the J.B. Latham Treatment Plant. The Los Alisos Water Recycling Plant is owned and operated by the Irvine Ranch Water District (IRWD); SMWD has an agreement with IRWD allowing up to 0.7 mgd of wastewater capacity (SMWD 2018). As shown in Table 4.19.A, the City’s total wastewater capacity is approximately 8.3 mgd.

The proposed project is anticipated to generate approximately 18,743 gpd of wastewater.¹ A majority of the existing commercial building is currently vacant, which contributes to the building’s relatively low wastewater generation of 2,293 gpd.² Compared to the existing commercial building, the project would result in an increase of 516,450 gpd of wastewater. However, it should be noted that the proposed project’s wastewater generation would be less than the wastewater generation of the commercial building if the building were fully occupied as permitted. Additionally, wastewater generated by the proposed project would be typical of residential wastewater flows in Mission Viejo. Further, the total amount of wastewater generated by the project represents approximately 0.2 percent³ of the daily treatment capacity at wastewater treatment plants serving Mission Viejo. Consequently, wastewater generated by the proposed project would be negligible (less than 1 percent) compared to wastewater treatment facility capacities. Development of the proposed project would not require, nor would it result in, the construction or relocation of new or expanded wastewater treatment or collection facilities other than those facilities required for connections to be constructed on site. Therefore, project impacts related to the construction of wastewater treatment or collection facilities would be less than significant, and no mitigation would be required.

¹ California Emissions Estimator Model (CalEEMod). Compiled by LSA (March 2019).
² Ibid.
³ Calculation: 18,743 gpd / 8.3 mgd = 0.2 percent.
**Stormwater Drainage Facilities.** The Stormwater Management Division of the City’s Public Works Department is responsible for overall management of stormwater quality issues within Mission Viejo. The City is a co-permittee on the San Diego MS4 permit issued by the San Diego RWQCB pursuant to the NPDES program (Order No. R9-2013-0001, NPDES No. CAS019266, *National Pollutant Discharge Elimination System Permit and Waste Discharge Requirements for Discharges from the MS4s Draining the Watersheds within the San Diego Region* [Order No. R9-2013-0001, Order or Regional MS4 Permit]). This permit regulates urban stormwater runoff, surface runoff, and drainage that flow into the MS4 system.

The project includes approximately 72,870 sf of total landscaping, which would capture stormwater runoff. Implementation of the proposed project would decrease the impervious surface area on the project site, which would improve management of runoff from the site. In addition, the project would increase the pervious surface area on the project site, which would increase infiltration of stormwater. As discussed in Section 4.10, Hydrology and Water Quality, a Final WQMP would be prepared for the project in compliance with the South Orange County MS4 Permit and the City’s Municipal Code. As stated in Regulatory Compliance Measure RCM-WQ-3, the Final WQMP will detail the Source Control, Site Design, and LID BMPs that would be implemented to treat stormwater runoff and reduce impacts to water quality during project operation. The operational BMPs would capture and treat stormwater runoff and reduce pollutants of concern in stormwater runoff. With implementation of Regulatory Compliance Measure RCM-WQ-3, the project would comply with recommendations in the Final WQMP, including operational BMPs, which would reduce impacts related to wastewater. Therefore, the proposed project would not exceed the capacity of downstream stormwater drainage facilities or cause the expansion of existing facilities. The proposed project would not require or result in the construction of new stormwater drainage facilities or expansion of existing facilities beyond the on-site improvements included as part of the proposed project. Therefore, impacts to stormwater drainage facilities would be less than significant with the incorporation of Regulatory Compliance Measure RCM-WQ-3.

**Electric Power.** Refer to Section 4.6, Energy, for further discussion related to the project’s impacts with respect to existing and projected supplies of electricity. As discussed further in Section 4.6, the project would not require or result in the relocation or construction of new or expanded electric power facilities, the construction of which could cause significant environmental effects. No mitigation would be required.

**Natural Gas.** The project does not include any utility improvements related to natural gas. Therefore, the project would not require or result in the relocation or construction of new or expanded natural gas facilities, the construction of which could cause significant environmental effects. No mitigation would be required.

**Telecommunications.** The primary cable and telephone service providers available to residents within the project’s vicinity (and more generally, within the City) are AT&T and Cox Communications. Construction activities associated with the proposed project would not increase the demand for telecommunications facilities. In addition, the proposed project would not involve the construction or relocation of new or expanded telecommunications facilities. As discussed in Section 4.14, Population and Housing, the project is anticipated to result in a population increase
of approximately 300 people; the increase in population resulting from the proposed project comprises less than 1 percent of the total population of Mission Viejo and does not represent a substantial increase in population. Therefore, implementation of the proposed project would not result in impacts related to the construction or relocation of existing telecommunications facilities, and no mitigation would be required.

Summary. The proposed project would not require or result in the relocation or construction of new of new or expanded facilities for water, wastewater treatment, storm drainage, electric power, natural gas, or telecommunications. Existing facilities have the capacity to serve the anticipated uses, and the project would not substantially increase demand upon these facilities as compared to historic and existing conditions at the project site. Therefore, impacts to these utility facilities would be less than significant, and no mitigation would be required.

Regulatory Compliance Measure. No mitigation is required; however, Regulatory Compliance Measure RCM-WQ-3, presented in Section 4.10, Hydrology and Water Quality, would be implemented to reduce project-related impacts to stormwater drainage facilities.

(b) Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

Less Than Significant Impact. As previously stated in Response 4.19(a), above, project implementation would result in a net decrease in water usage overall. According to the 2015 UWMP, SMWD’s projected water supply is able to meet projected water demands in the years 2020, 2025, 2030, 2035, and 2040 during normal years, single dry years, and multiple dry years. In 2015, the actual water supply was 34,405 af. As stated previously, the proposed project is anticipated to use approximately 30,559 gpd of water; the proposed project would result in an increase of 26,860 gpd of water usage compared to the existing commercial building (which is characterized by a majority of tenant vacancies). However, it should be noted that the proposed project’s water usage would be less than the water usage of the commercial building if the building were fully occupied as permitted. Further, the total amount of anticipated water usage by the project represents approximately 0.1 percent of the 2015 water in SMWD’s service area. Therefore, water demand from the proposed project would be within SMWD’s current and projected water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years. Impacts related to water supplies would be less than significant, and no mitigation would be required.

(c) Would the project result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project’s projected demand in addition to the provider’s existing commitments?

Less Than Significant Impact. Although the project is located within Orange County, it falls within the jurisdiction of the San Diego RWQCB. The proposed project is not a wastewater treatment facility and is not subject to the wastewater treatment requirements of the San Diego RWQCB. Local governments and water districts are responsible for complying with federal regulations, both for wastewater plant operation and the collection systems (e.g., sanitary sewers) that convey wastewater to the wastewater treatment facility. Proper operation and maintenance are critical...
for sewage collection and treatment because impacts from these processes can degrade water resources and affect human health. For these reasons, publicly owned treatment works (POTWs) receive WDRs to ensure that such wastewater facilities operate in compliance with the water quality regulations set forth by the State. WDRs, issued by the State, establish effluent limits on the kinds and quantities of pollutants that POTWs can discharge. These permits also contain pollutant monitoring, record-keeping, and reporting requirements. Each POTW that intends to discharge into the nation’s waters must obtain a WDR prior to initiating its discharge.

The project is located within the service area of SMWD. SMWD provides water and wastewater treatment services to approximately 160,000 customers in Mission Viejo and Rancho Santa Margarita, as well as in the unincorporated communities of Coto de Caza, Ladera Ranch, Rancho Mission Viejo, Talega, and Wagon Wheel (SMWD 2018). The majority of wastewater generated by Mission Viejo is delivered to the Oso Creek Water Reclamation Plant (OCWRP), the 3A Water Reclamation Plant (3AWRP), and the J.B. Latham Treatment Plant. Additionally, approximately 670,000 gallons per day (gpd) of wastewater generated in the northeast portion of Mission Viejo, where the project site is located, is sent to the Los Alisos Water Recycling Plant (SMWD 2016). The combined treatment capacity allocated to Mission Viejo is approximately 8.3 mgd (refer to Table 4.19.A, above).

The proposed project would include construction of a residential development with 105 residential units, providing approximately 192,116 sf of dwelling area. Infrastructure components to be implemented as part of the proposed project would require connections to existing off-site infrastructure systems. These systems, which would include sanitary sewer, would be constructed on site and would be fully provided and maintained by the property owner. All on-site systems would connect to existing infrastructure on Los Alisos Boulevard and along the northern boundary of the project site adjacent to SR-241.

As discussed in Response 4.19(a) above, the proposed project is anticipated to result in an increase of 16,450 gpd of wastewater generated at the project site compared to existing conditions. However, it should be noted that the proposed project’s wastewater generation would be less than the wastewater generation of the commercial building if the building were fully occupied as permitted. The total amount of wastewater generated by the project (approximately 18,743 gpd1) represents approximately 0.2 percent2 of the daily treatment capacity at wastewater treatment plants serving Mission Viejo. Consequently, the wastewater flows from the proposed project can be accommodated within the existing design capacity of the wastewater treatment plants serving the City. Additionally, wastewater generated from the proposed project would be typical of residential wastewater flows in Mission Viejo. As such, SMWD and other wastewater treatment providers would have adequate capacity to serve the project’s projected demand in addition to the providers’ existing commitments. The project would not result in any of the wastewater treatment plants discussed above exceeding wastewater treatment requirements. Therefore, impacts related to wastewater generation are less than significant, and no mitigation would be required.

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1 California Emissions Estimator Model (CalEEMod). Compiled by LSA (March 2019).
2 Calculation: 14,499 gpd / 8.3 mgd = 0.2 percent.
(d) Would the project generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

Less Than Significant Impact. The Mission Viejo Public Works Department provides a wide range of services to the City, including waste collection. Within Mission Viejo, collection of solid waste is contracted to Waste Management of Orange County, which provides three different carts for automated collection of trash, recyclables, and green waste (City of Mission Viejo 2018a). Solid waste collected from the project site would be anticipated to be hauled to the Prima Deshecha Landfill, located at 32250 Avenida La Pata in San Juan Capistrano. The Prima Deshecha Landfill, which opened in 1976, is owned and operated by the County. The landfill is scheduled to close in 2067 (Orange County Waste and Recycling 2016). The Prima Deshecha Landfill is permitted to accept up to 4,000 tons of solid waste per day and currently accepts a daily average of approximately 1,400 tons of solid waste per day (Orange County Waste and Recycling 2018). As such, the landfill has an excess capacity of approximately 2,600 tons of solid waste per day.

Construction of the proposed project would require demolition of the existing building and associated foundations. The majority of waste generated during demolition and construction activities would be building materials (e.g., concrete, dirt, and waste generated by construction workers). The generation of construction waste would be temporary, would cease upon construction completion, and would not be substantial. Nonhazardous waste from project construction activities would be recycled to the extent feasible. Section 6.10.1100 of the City’s Municipal Code stipulates that residential and commercial projects (involving construction or demolition) that involve 250 sf or more of floor area and that have a valuation equal to or exceeding $10,000 are required to meet the City’s waste diversion requirements. The City’s waste diversion requirements stipulate that either (1) all construction and demolition waste generated by the project that will not be salvaged or reused at the project site be removed through Waste Management of Orange County; or (2) the Applicant may self-haul all construction and demolition waste generated at the project site if a Waste Diversion Plan is submitted and approved by the Director, or designee, of the Department of Building and Safety. As stated in Regulatory Compliance Measure RCM-USS-1, and prior to final inspection, the Applicant would be required to submit a Waste Diversion Report to the Director, or designee, of the Department of Building and Safety that details the project’s compliance with the City’s waste diversion requirements. Thus, the proposed project would be required to meet the City’s waste diversion requirements as they pertain to project construction. Furthermore, construction waste is anticipated to be minimal compared to waste generated throughout the lifetime of the project during operation.

As described further in Section 4.14, Population and Housing, the proposed project includes the construction of 105 residential units that would result in an increase of approximately 300 residents on the project site. Under existing conditions, the commercial uses on the project site generate a total of approximately 0.03 ton of solid waste per day (11.87 tons per year).1 As stated above, a majority of the existing commercial building is currently vacant and would generate more solid waste if fully occupied as permitted. The proposed project would generate a total of approximately 0.22 ton of solid waste per day (79.72 tons per year) during project operation,2

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1 California Emissions Estimator Model (CalEEMod). Compiled by LSA (March 2019).
2 California Emissions Estimator Model (CalEEMod). Compiled by LSA (March 2019).
which would represent a net increase in solid waste generation. As stated previously, the Prima Deshecha Landfill has the capacity to process an additional 2,600 tons of solid waste per day. The total amount of solid waste generated by the proposed project would constitute less than 0.1 percent of the remaining daily available capacity at the Prima Deshecha Landfill. As such, solid waste generated by the proposed project would not cause the capacity of the Prima Deshecha Landfill to be exceeded. The proposed project would not generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure. Moreover, the project would not otherwise impair the attainment of solid waste reduction goals. Therefore, the project would result in a less than significant impact to solid waste and landfill facilities, and no mitigation would be required.

Regulatory Compliance Measure. No mitigation is required; however, Regulatory Compliance Measure RCM-USS-1 would be implemented to reduce project impacts related to solid waste generation.

RCM-USS-1 Preparation of a Waste Diversion Report. In accordance with Section 6.10.1100 of the Mission Viejo Municipal Code, prior to final inspection, the Project Applicant would be required to submit a Waste Diversion Report to the Director, or designee, of the Department of Building and Safety that details the project’s compliance with the City’s waste diversion requirements.

(e) Would the project comply with federal, State, and local management and reduction statutes and regulations related to solid wastes.

Less Than Significant Impact. The California Integrated Waste Management Act of 1989 (AB 939) changed the focus of solid waste management from landfill to diversion strategies (e.g., source reduction, recycling, and composting). The purpose of the diversion strategies is to reduce dependence on landfills for solid waste disposal. AB 939 established mandatory diversion goals of 25 percent by 1995 and 50 percent by 2000. AB 341 (2011) amended the California Integrated Waste Management Act of 1989 to include a provision declaring that it is the policy goal of the State that not less than 75 percent of solid waste generated be source-reduced, recycled, or composted by the year 2020 and annually thereafter. In addition, AB 341 required the California Department of Resources Recycling and Recovery (CalRecycle) to develop strategies to achieve the State’s policy goal. CalRecycle has conducted multiple workshops and published documents that identify priority strategies to assist the State in reaching the 75 percent goal by 2020.

According to the Mission Viejo Sustainable Action Plan (2013), future solid waste reduction strategies include enhanced construction waste diversion, enhanced food waste diversion, and on-site residential composting. Although these strategies are aimed at reducing the City’s overall GHG emissions, they may also improve the City’s total waste diversion rate.

As stated in Response 4.19(e), above, the proposed project would be required to implement Regulatory Compliance Measure RCM-USS-1 and thereby meet the City’s construction waste diversion requirements (as stipulated in Section 6.10.1100 of the Municipal Code). In addition, the proposed project would be required to comply with all federal, State, and local regulations related to solid waste. Furthermore, the proposed project would comply with all standards related
to solid waste diversion, reduction, and recycling during project construction and operation. Therefore, the proposed project is anticipated to result in less than significant impacts related to potential conflicts with federal, State, and local management and reduction statutes and regulations pertaining to solid waste, and no mitigation would be required.
4.20  WILDFIRE

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<th></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><strong>If located in or near state responsibility areas or lands classified as very high severity zones, would the project:</strong></td>
<td></td>
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<td></td>
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<tr>
<td>(a) Substantially impair an adopted emergency response plan or emergency evacuation plan?</td>
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<tr>
<td>(b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?</td>
<td>☐</td>
<td>☐</td>
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</tr>
<tr>
<td>(c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?</td>
<td>☐</td>
<td>☐</td>
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<tr>
<td>(d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?</td>
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</tbody>
</table>

4.20.1  Impact Analysis

(a) If located in or near state responsibility areas or lands classified as very high severity zones, would the project substantially impair an adopted emergency response plan or emergency evacuation plan?

**No Impact.** According to the CAL FIRE and Resource Assessment Program, the project site is not located within a Very High Fire Hazard Severity Zone (VHFHSZ); however, a VHFHSZ within a Local Responsibility Area (LRA) is located north of SR-241 at the area surrounding the Upper Oso Reservoir (CAL FIRE 2018). The Upper Oso Reservoir area is not open to the public.

The proposed project would not substantially impair an adopted emergency response plan or emergency evacuation plan. As stated in Section 4.10, Hazards and Hazardous Materials, the City’s Public Safety Element (2009b) outlines goals and policies aimed at reducing the potential risk of loss of life, injury, property damage, and economic and social dislocation resulting from a disaster, accident, or other hazards in Mission Viejo. Emergency events addressed in the Public Safety Element include those associated with landslides, earthquakes, flooding, hazardous materials exposure, fire, crime, and general emergency preparedness. Los Alisos Boulevard, which provides local access to the project site, is one of the City’s emergency evacuation routes.

The proposed project does not include any characteristics (e.g., permanent road closures or long-term blocking of road access) that would substantially impair or otherwise conflict with an emergency response plan or emergency evacuation plan. As discussed in Section 4.17, Transportation/Traffic, the proposed project is not anticipated to result in any substantial traffic queuing on nearby streets during short-term construction activities, and all construction equipment would be staged within the project site. Therefore, impacts related to emergency
response and evacuation plans associated with construction of the proposed project would be less than significant.

The proposed project does not include any changes to public or private roadways that would physically impair or otherwise conflict with an emergency response plan or emergency evacuation plan. Further, the proposed project would not obstruct or alter any transportation routes that could be used as evacuation routes during emergency events, including Los Alisos Boulevard. In addition, during the operational phase of the proposed project, on-site access would be required to comply with standards established by the City and the Orange County Fire Authority (OCFA). The size and location of fire suppression facilities (e.g., hydrants) and fire access routes would be required to conform to City and OCFA standards. The proposed project would provide adequate emergency access to the site via a driveway and easement off of Los Alisos Boulevard; the driveway and easement would connect to an internal access way that would ensure access for emergency vehicles within the interior of the site. Conversely, the easement would connect the project site to Los Alisos Boulevard, which is an emergency evacuation route within the City. Further, access to and from the project site for emergency vehicles would be reviewed and approved by OCFA and the City as part of the project approval process to ensure the proposed project is compliant with all applicable codes and ordinances for emergency vehicle access. Therefore, operation of the proposed project would not substantially impair implementation of an adopted emergency response plan or emergency evacuation plan. Operational project impacts would be less than significant. Therefore, the proposed project would not substantial impair an adopted emergency response plan or emergency evacuation plan, and no mitigation is required.

(b) If located in or near state responsibility areas or lands classified as very high severity zones, would the project due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

Less Than Significant Impact. The proposed project involves the redevelopment of a commercial building to a 105-unit residential development. As discussed in Section 4.14, Population and Housing, the project is anticipated to result in a population increase of approximately 300 people. As stated previously, the project site is not located within a VHFHSZ; however, a VHFHSZ is located north of SR-241 at the area surrounding the Upper Oso Reservoir (approximately 500 ft from the project site).

Though the project site is relatively flat, the surrounding area contains natural and manufactured slopes. O’Neill Regional Park and surrounding area, located northeast of the project site, is characterized by natural hills and valleys and is generally positioned at a higher elevation than the site. SR-241, which is adjacent to the project site’s northern boundary, slopes downward in a southeast-northwest direction and is generally positioned at a higher elevation than the project site. Los Alisos Boulevard slopes downward in an east-west direction and is located at the project site’s southern boundary. The project site and surrounding area are currently developed, and therefore, lack the combustible materials and vegetation necessary for the uncontrolled spread of a wildfire.
The project proposes a residential development in an area characterized by existing residential and commercial uses. As such, the project itself would not exacerbate wildfire risks as compared to existing conditions because it is representative of existing development in the area and is replacing an existing fully developed commercial use. Additionally, in the event of a wildfire, the SR-241 roadway, which is elevated higher than the project site, would act as a barrier between the site and the Upper Oso Reservoir and its associated VHFHSZ, acting as a fire break between the VHFHSZ and the project site. As a result of the project site’s position adjacent to SR-241, the site would be protected in the event of a wildfire further north of the site. Therefore, due to slope, prevailing winds, location, and other factors, the proposed project would not exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire. No mitigation would be required.

(c) If located in or near state responsibility areas or lands classified as very high severity zones, would the project require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

No Impact. The project does not require the installation or maintenance of associated infrastructure (including roads, fuel breaks, emergency water sources, power lines, or other utilities) that would exacerbate fire risk or that would result in impacts to the environment. Although the project includes a proposed internal roadway within the residential development, the project does not include any changes to public or private roadways that would that would exacerbate fire risk or that would result in impacts to the environment. Although utility improvements, including domestic water, recycled water, sanitary sewer, and storm drain lines, proposed as part of the project would be extended throughout the project site, these utility improvements would be underground and would not exacerbate fire risk. Project design and implementation of utility improvements would be reviewed and approved by the City’s Public Works Department as part of the project approval process to ensure the proposed project is compliant with all applicable design standards and regulations. Therefore, the proposed project would not include infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities), that would exacerbate fire risk or that would result in impacts to the environment. No mitigation is required.

(d) If located in or near state responsibility areas or lands classified as very high severity zones, would the project expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

Less than Significant with Mitigation Incorporated. According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM), the project site is not within a 100-year floodplain. In its existing condition, the project site is relatively flat with no slopes present on the site.

As established in Section 4.10, Hydrology and Water Quality, during project construction soil would be compacted and drainage patterns would be temporarily altered due to grading, and there would be an increased potential for flooding compared to existing conditions. However, as stated in Regulatory Compliance Measure RCM-WQ-1, the Construction General Permit requires...
preparation of a SWPPP to identify construction BMPs to be implemented as part of the proposed project. Implementation of construction BMPs would control and direct surface runoff to prevent flooding, and as such, project construction would not expose people or structures to significant risks related to downslope and downstream flooding. Therefore, impacts would be less than significant.

During operation, the proposed project would not substantially alter the existing on-site drainage patterns and would decrease impervious surface area on the project site, which would help manage the volume of runoff from the site compared to existing conditions. With the implementation of Regulatory Compliance Measure RCM-WQ-3, the project would incorporate Site Design BMPs, which would be included into project design to reduce runoff. In addition, compliance with the proposed operational BMPs would ensure on-site storm drain facilities would be sized to accommodate stormwater runoff from the project site so that on-site flooding would not occur. Operation of the project would not expose people or structures to significant risks, including downslope or downstream flooding. Therefore, impacts would be less than significant.

As established in Section 4.7, Geology and Soils, there are no landslide zones close to or within the boundaries of the project site. The project site is relatively flat; consequently, the risk of slope failure represents a limited level of concern on the project site. Further, implementation of Mitigation Measure GEO-1 requires project compliance with recommendations outlined in the Final Geotechnical Report, which would reduce potential impacts related to landslides to a less than significant level. Therefore, with implementation of Mitigation Measure GEO-1, the project would not expose people or structures to significant risks, including downslope or downstream landslides, and no further mitigation would be required.

**Regulatory Compliance Measure.** Regulatory Compliance Measures RCM-WQ-1 and RCM-WQ-3, presented in Section 4.10, Hydrology and Water Quality, would be implemented to reduce project-related impacts related to flooding during construction and operation.

**Mitigation Measure.** Mitigation Measure GEO-1, presented in Section 4.7, Geology and Soils, would be implemented to ensure the project’s compliance with recommendations in the Final Geotechnical Report prepared for the project.
## 4.21 MANDATORY FINDINGS OF SIGNIFICANCE

<table>
<thead>
<tr>
<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) Does the project have the potential to substantially 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, substantially 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?</td>
<td>✗</td>
<td>☐</td>
<td>☐</td>
</tr>
<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>
<td>☒</td>
<td>☐</td>
</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>

### 4.21.1 Impact Analysis

(a) Does the project have the potential to substantially 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, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

**Less Than Significant Impact.** Based on the discussion in Section 4.4, Biological Resources, the proposed project is anticipated to result in less than significant impacts related to habitat, wildlife species, and/or plant and animal communities. The proposed project would not eliminate a plant or animal community, nor would it substantially reduce the number or restrict the range of a rare or endangered plant or animal.

As discussed in Section 4.5, Cultural Resources, Response 4.5(a), the project site does not contain any buildings or structures that meet any of the California Register of Historical Resources (California Register) criteria or qualify as “historical resources” as defined by CEQA. Further, the project site is not designated as a historical/archaeological landmark by the City or the County. Therefore, the proposed project would not cause a substantial adverse change in the significance of a historical resource.

As discussed in Section 4.18, Tribal Cultural Resources, the City requested a search of the Sacred Lands File by the Native American Heritage Commission (NAHC) for the proposed project site. On
March 19, 2019, the search was completed with negative results for the presence of tribal cultural resources. The results of the record search conducted at the South Central Coastal Information Center indicate that no cultural resources exist within the proposed project site. The entire proposed project site was included as part of archaeological monitoring for the existing commercial development, and no cultural resources were encountered during the archaeological monitoring. The soils on the proposed project site are nonnative and have been disturbed previously during excavation and construction of the site’s existing commercial use. Although no archaeological or paleontological resources are anticipated to be located on site due to the previous development with commercial uses and because no native soils will be disturbed, the proposed project requires a General Plan Amendment and zone change. Consequently, tribal consultation is ongoing as part of the California Environmental Quality Act (CEQA) process in compliance with Assembly Bill (AB) 52 and Senate Bill (SB) 18. Information provided through tribal consultation will inform the assessment as to whether the tribes believe any tribal cultural resources are present and the significance of any potential impacts to such resources. In the event that tribal cultural resources are identified during the tribal consultation process, the City of Mission Viejo will work with the tribes to address their concerns.

For the reasons stated above, the project does not have the potential to substantially 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, substantially 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. Impacts would be less than significant, and no mitigation would be required.

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

Less Than Significant with Mitigation Incorporated. The project site is being redeveloped from a commercial use to a residential development. The proposed project involves construction of a 105-unit residential development on the project site. The site is currently developed and is surrounded by a variety of commercial and residential uses. The project site is bounded by SR-241 to the north; a vacant lot and hotel development to the east; commercial uses, a surface parking lot, and Los Alisos Boulevard to the south; and a residential apartment complex to the west. The Upper Oso Reservoir, an earth-fill dam, is located directly north of SR-241. Single-family residential uses are located south of Los Alisos Boulevard.

As presented in this IS/MND, potential project-related impacts are either less than significant or would be less than significant with mitigation incorporated. Based on the analysis contained in this IS/MND, project-related impacts would be reduced to less than significant levels with the incorporation of mitigation measures. Given that the potential project-related impacts would be mitigated to a less than significant level, implementation of the proposed project would not result in impacts that are cumulatively considerable when evaluated with the impacts of other current projects, or the effects of probable future projects. Therefore, the proposed project’s contribution to any significant cumulative impacts would be less than cumulatively considerable. As discussed
in Sections 4.1 through 4.20 of this IS/MND, mitigation would be required and incorporated as necessary.

(c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

Less Than Significant with Mitigation Incorporated. Based on the Project Description and the preceding responses in Sections 4.1 through 4.20 of this IS/MND, implementation of the proposed project would not cause substantial adverse effects to human beings because all potentially significant impacts of the proposed project would be mitigated to a less than significant level. Therefore, since all potentially significant impacts of the proposed project are expected to be mitigated to a less than significant level, implementation of the proposed project would not cause substantial adverse effects on human beings.
5.0 REFERENCES


California State University, Fullerton. 2018. Records search conducted at South Central Coastal Information Center (SCCIC) of the California Historical Resources Information System (CHRIS). November 28.


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