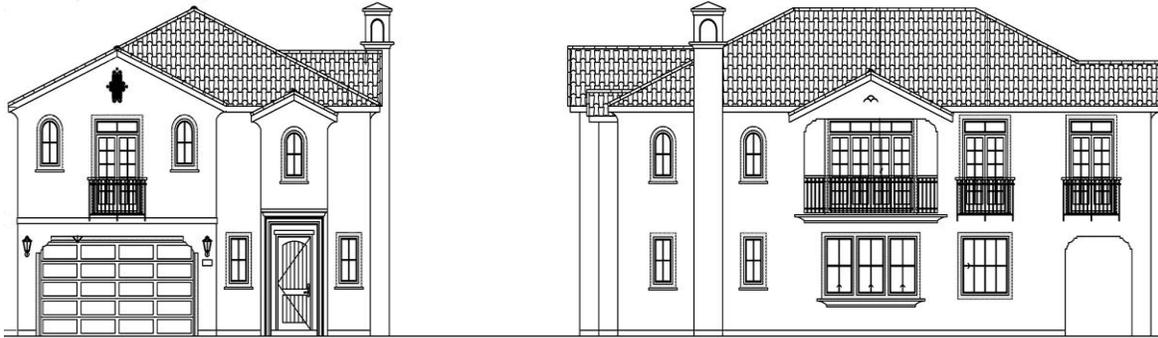


MITIGATED NEGATIVE DECLARATION

VILLA SERENA RESIDENTIAL PROJECT



Lead Agency:

City of Fountain Valley
10200 Slater Avenue
Fountain Valley, CA 92708
(714) 593-4400

Project Proponent:

Keystone DCS, Inc.
9140 Trask Avenue, Suite 202
Garden Grove, CA 92844
(714) 791-3771

Environmental Consultant:

Phil Martin & Associates
4860 Irvine Boulevard, Suite 203
Irvine, California 92620
(949) 454-1800

May 1, 2019

Environmental Checklist

For CEQA Compliance

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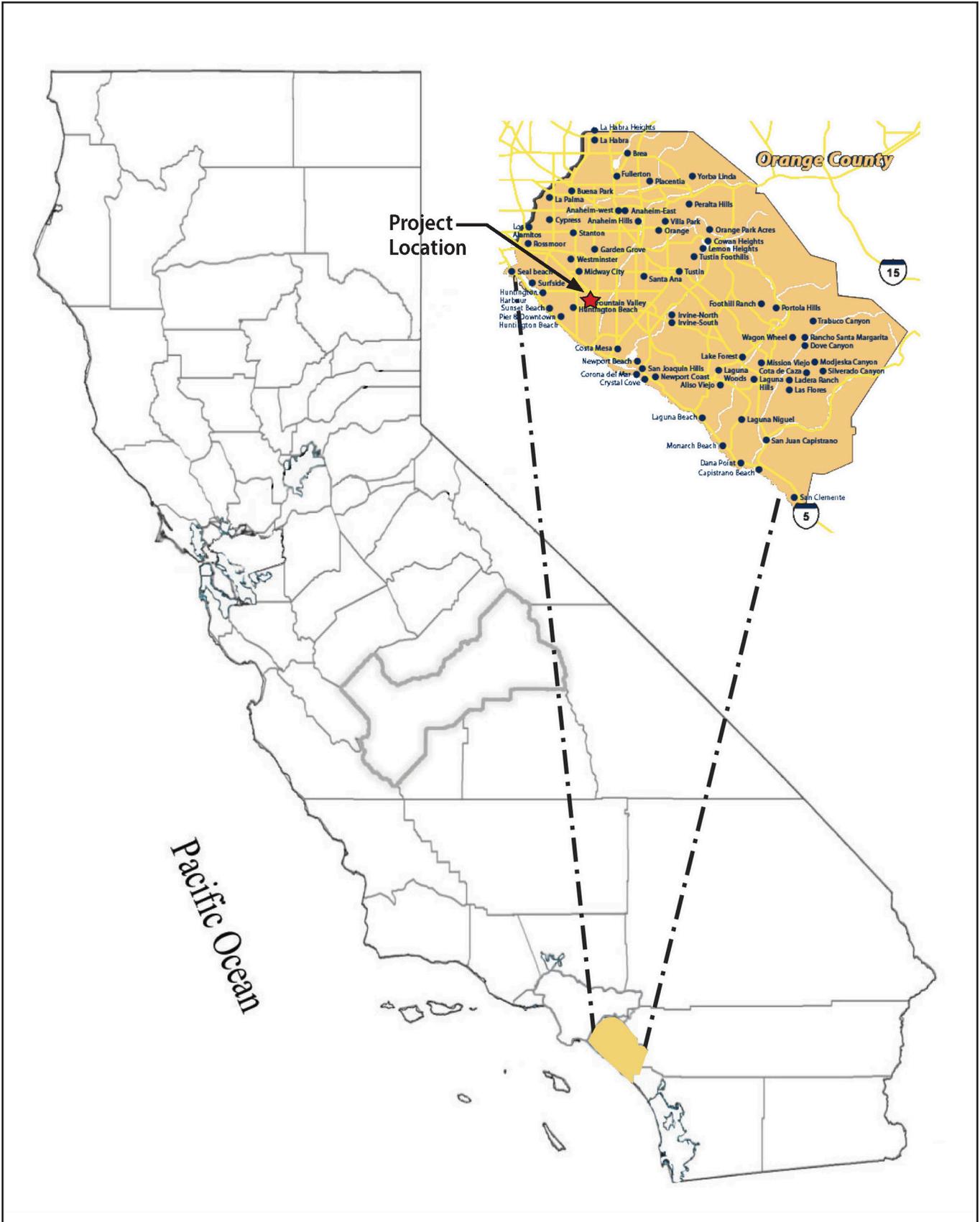
PLANNING DEPARTMENT

1. **Project Title:** Villa Serena Residential Project
2. **Lead Agency Name and Address:** City of Fountain Valley
10200 Slater Avenue
Fountain Valley, CA 90201
3. **Contact Person and Phone Number:** Matt Jenkins, Assistant Planner (714) 593-4427
4. **Project Location:** The project is located in the City of Fountain Valley as shown in Figure 1, Regional Map. More specifically, the project is located at 10460 Slater Avenue as shown in Figure 2, Vicinity Map. An aerial photograph of the site and surrounding area is shown in Figure 3, Aerial Photo. Figure 4 is a topography map that shows the topography on the site and surrounding areas.
5. **Project Sponsor's Name and Address:** Keystone DCS, Inc.
9140 Trask Avenue, Suite 202
Garden Grove, CA 92844
(714) 791-3771
6. **General Plan Designation:** The project site is designated as Low Density Residential by the Fountain Valley General Plan. The project would require a General Plan Amendment to Low Medium Density Residential.
7. **Zoning:** The site is zoned R-1 (Low Density Residential) by the Fountain Valley Zoning Map. The project would require a zone change to GH (Garden Homes) for the southerly portion of the site to allow the development of twelve (12) garden homes.
8. **Description of Project:** The project site totals approximately 4.07 acres and includes one parcel (APN 169-141-04). The northerly half of site includes the Coastal church and adjacent to and east of the church is a private school. An asphalt parking lot that provides parking for both the church and the private school is located adjacent to and south of the church and the school.

The project proposes to divide the 4.07 acre site into two parcels. The northerly parcel would include the existing church and private school and total approximately 2.43 acres. The southerly parcel that is proposed for the development of twelve garden homes would total approximately 1.63 acres.

The project applicant proposes the development of twelve (12) market rate single-family garden homes at a density of 7.36 dwelling units per acre. The project proposes a total of 52 parking spaces, including two spaces per unit in an enclosed garage and twenty-eight (28) guest parking spaces that includes 2 guest parking spaces in each private driveway and four guest parking spaces on the private street. Access to the project site would be provided from Ward Street with the construction of a new private street that would extend from Ward Street to the west end of the site where a "hammer head" would provide access to the two westerly garden homes and provide a "turn-around" for emergency vehicles, including fire trucks.

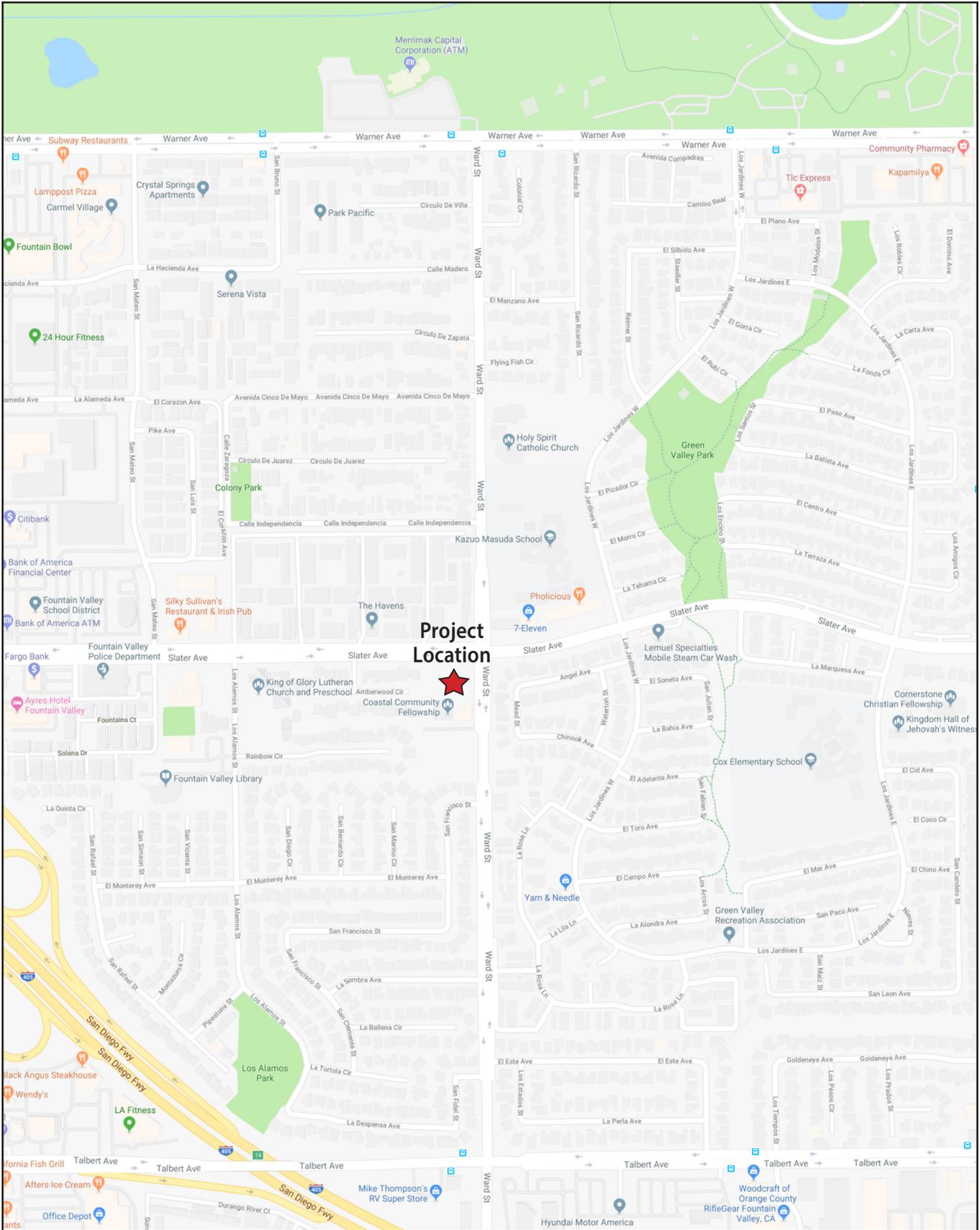
Per the Fountain Valley Municipal Code (FVMC), the maximum allowable density in the R-1 zone is 5 dwelling units per acre (DU/AC). Thus, the 1.63 acre would allow a maximum of 8 units. The GH zone



Source: Phil Martin & Associates, Inc.



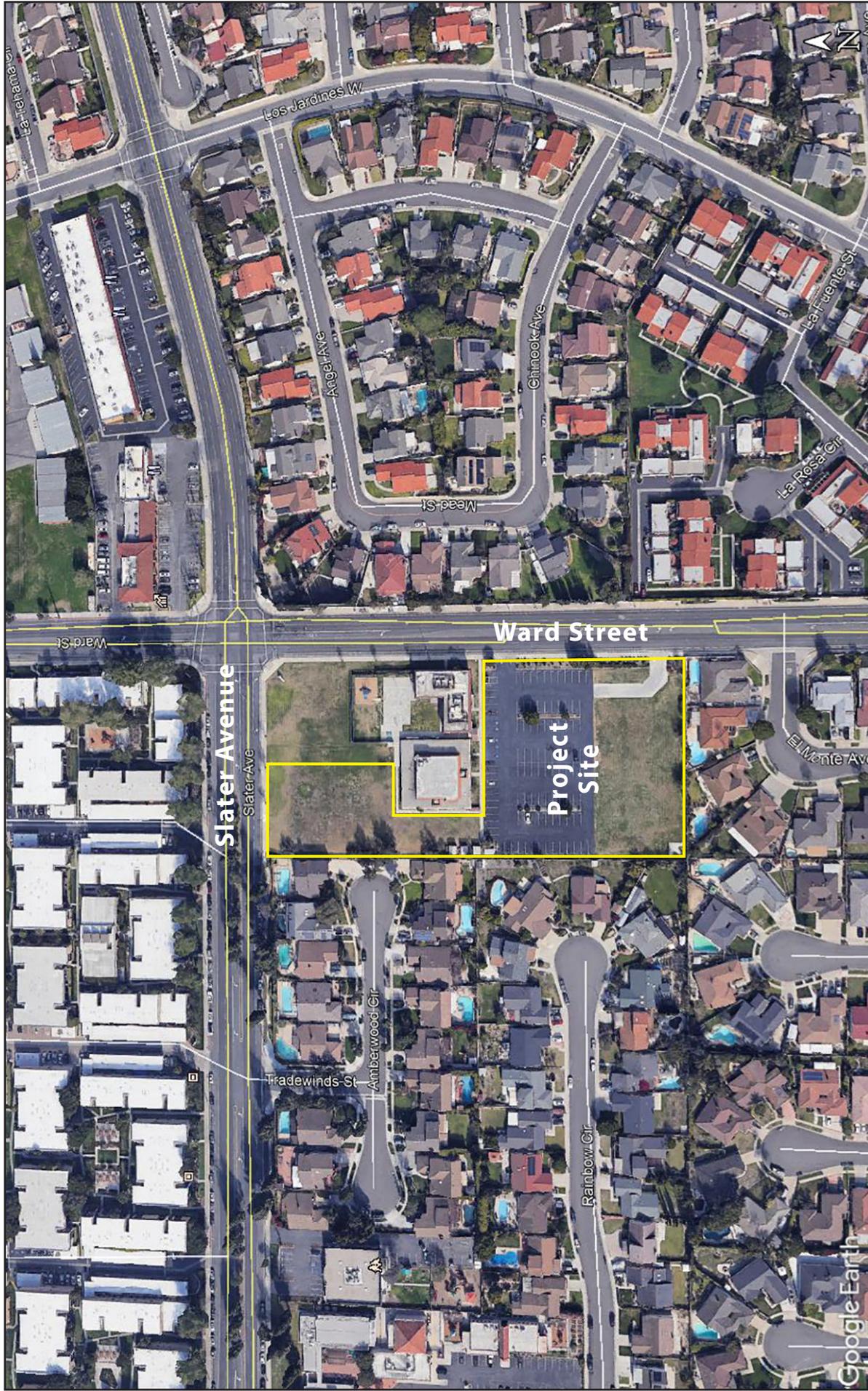
Figure 1
Regional Map



Source: Google Maps, 2018



Figure 2
Vicinity Map



Source: Google Earth 2019

Figure 3

Aerial Photo

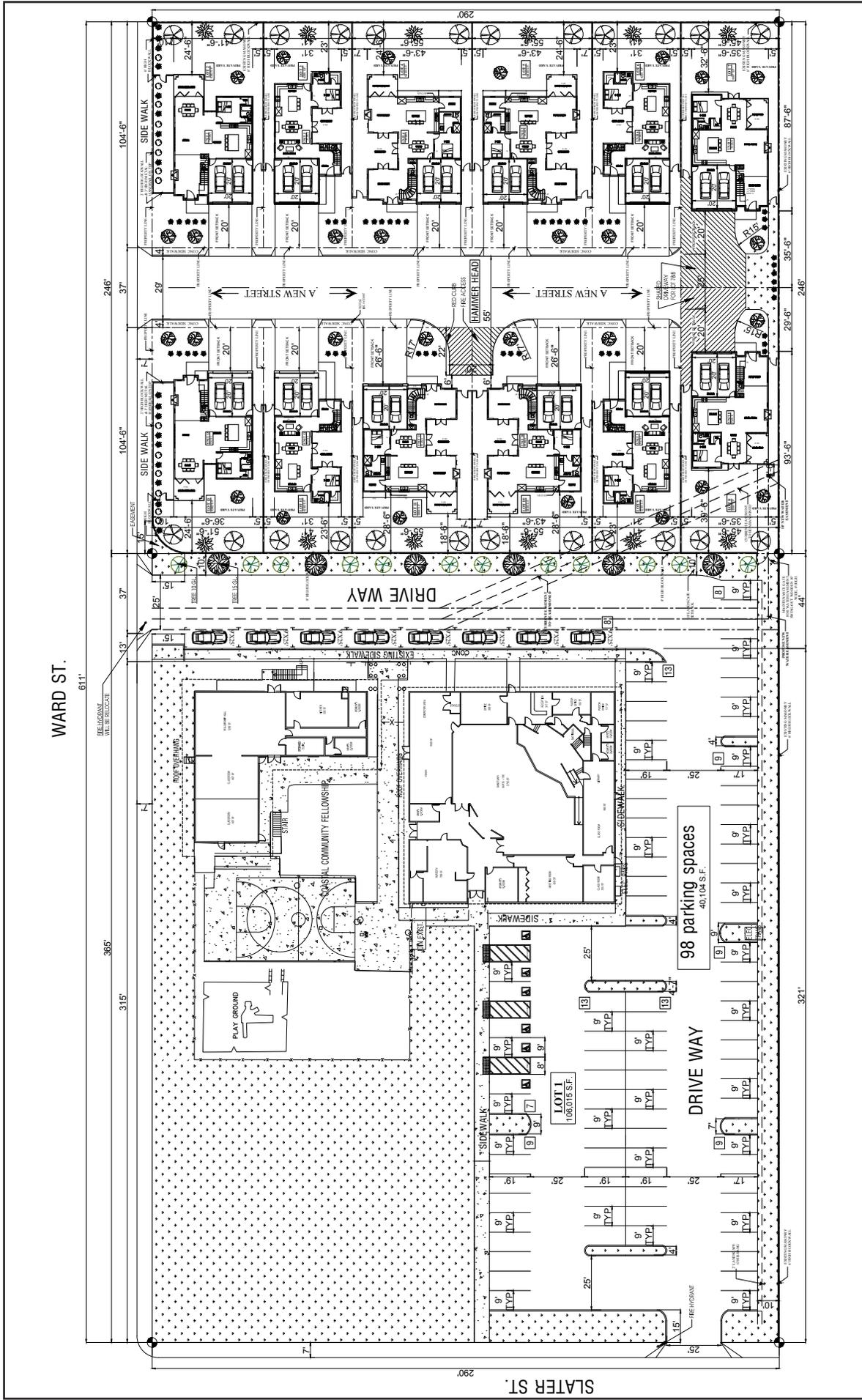


allows a maximum density of 10.8 DU/AC. Thus, the 1.63 acre site would allow a maximum development of 17 dwelling units. The density of the project is 7.3 DU/AC (12 dwelling units ÷ 1.63 acres = 7.3 DU/AC) and is within the maximum allowable density of 10.8 DU/AC allowed in the requested GH zone for the project site. The project proposes four (4) different floor plans. All of the garden homes would have four bedrooms and 4.5 bathrooms and range in size from 2,228 square feet to 3,016 square feet. All units would have 2-car garages and the lots would range from 4,285 square feet for the smaller units to 5,800 square feet for the largest units. The units would have a minimum front yard setback of twenty (20) feet, a rear yard setback that would range from twenty (20) feet to twenty-five feet (25) feet, and side-yard setbacks that would range from five (5) feet to seven (7) feet and the two units adjacent to Ward Street would have side yard set-backs of ten (10) feet. The project proposes a total of 49,938 square feet of open space which includes front, rear and side yard areas. The architectural style is Italian.

The project is scheduled to be constructed in one phase with construction tentatively scheduled to start in August 2019 and completed in June 2020.

The project also includes a relocation of existing surface parking lot that is located south of the Coastal church and school to the westerly side of the church. The existing drive aisle along the south side of the church and school and ingress/egress driveway at Ward Street would remain. A new driveway would be constructed at the northwest corner of the site to allow ingress/egress to Slater Avenue. The proposed site plan is shown in Figure 5.

9. **Surrounding Land Uses and Setting:** The land uses surrounding the project site include single-family detached residences to the west, east and south. Adjacent to and north of the site is Slater Avenue and north of Slater Avenue is an apartment complex. Figure 6 shows photographs of the on-site land uses and Figures 7 and 8 show photographs of the surrounding land uses. Figure 9 is a photo orientation map of the on-site and surrounding land uses.
10. **Other Public Agencies whose approval is Required:** The discretionary approvals required from the City of Fountain Valley includes a General Plan Amendment from Low Density Residential to Low Medium Density Residential, a zone change from R-1 (Low Density Residential) to GH (Garden Homes), approval of Tentative Tract Map No. 18186 to divide the 4.07 acre site into two parcels consisting of a northerly parcel totaling approximately 2.43 acres that would include the existing church and private school and the southerly parcel that would total approximately 1.63 acres that is proposed for the development of thirteen single family detached units, a Precise Plan to allow the development of a new parking lot on the church site and the proposed residential site and a Conditional Use Permit (CUP) to allow the development of the residential units in the GH zone. No other public agency approvals are required.
11. **Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code Section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?** Tribal letters were mailed December 19, 2018 to six tribes and formally inviting consultation with the city in compliance with 21080.3.1. To date the City has received a request from the Gabrielino Ban of Mission Indians – Kizh Nation for consultation. The tribes that were contacted includes:
 1. Gabrielino Ban of Mission Indians – Kizh Nation
 2. Gabrieleno/Tongva Nation
 3. Gabrieleno/Tongva Indians of California Tribal Council



Source: Keystone Development, Construction Services

Figure 5
Site Plan



A. Looking west across the site from Ward Street.



B. Looking west at the site from the south driveway at Ward Street.



C. Looking south across the site from the church parking lot.

Source: Phil Martin & Assoc.



D. Looking southeast across the site at the south driveway at Ward Street.

Figure 6

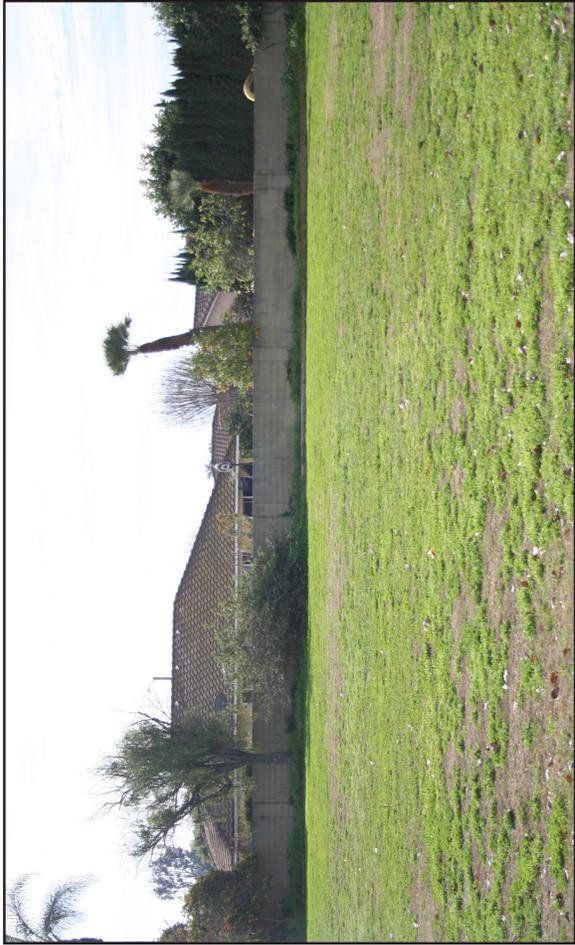
On-Site Photos



E. Looking at the church and church school on the site.



F. Looking at existing residences east of site, east of Ward Street.



G. Looking at existing residences south of site.

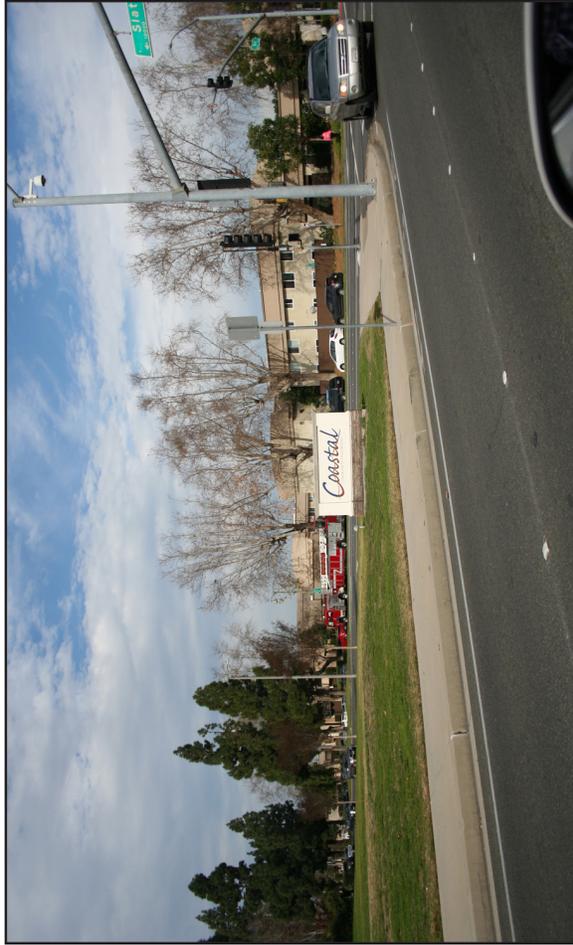
Source: Phil Martin & Assoc.



H. Looking at existing residences west of site.

Figure 7

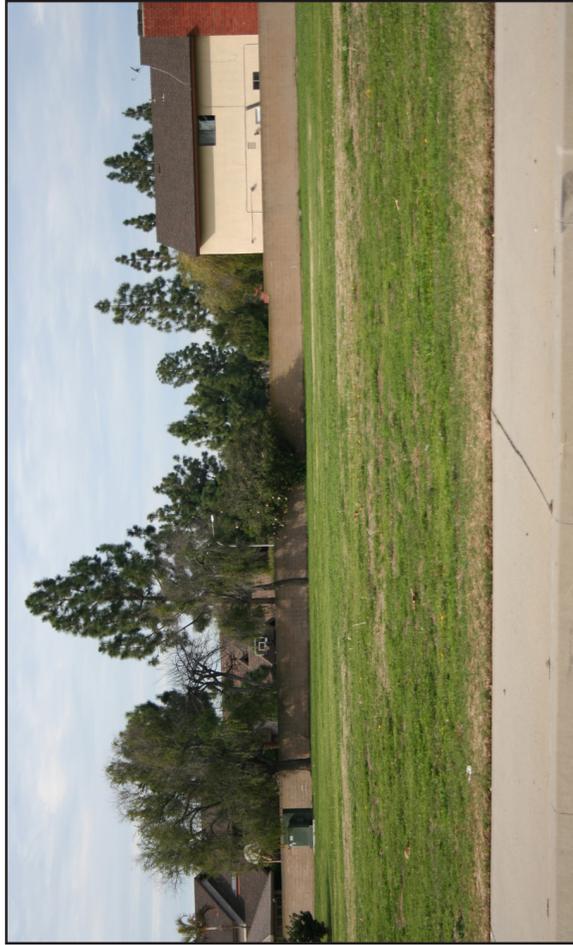
Surrounding Land Use Photos



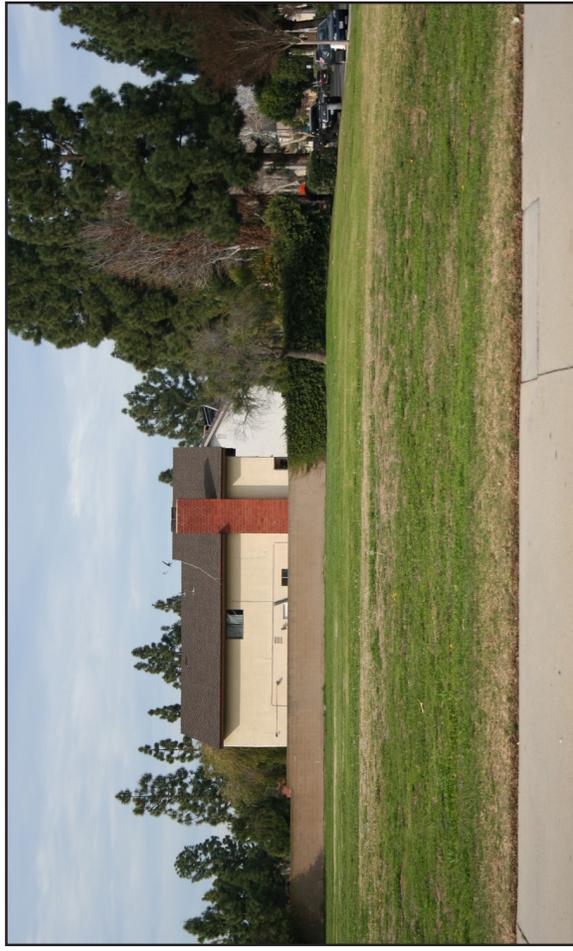
I. Looking at apartment complex north of site.



J. Looking north at area west of church proposed for new parking lot.



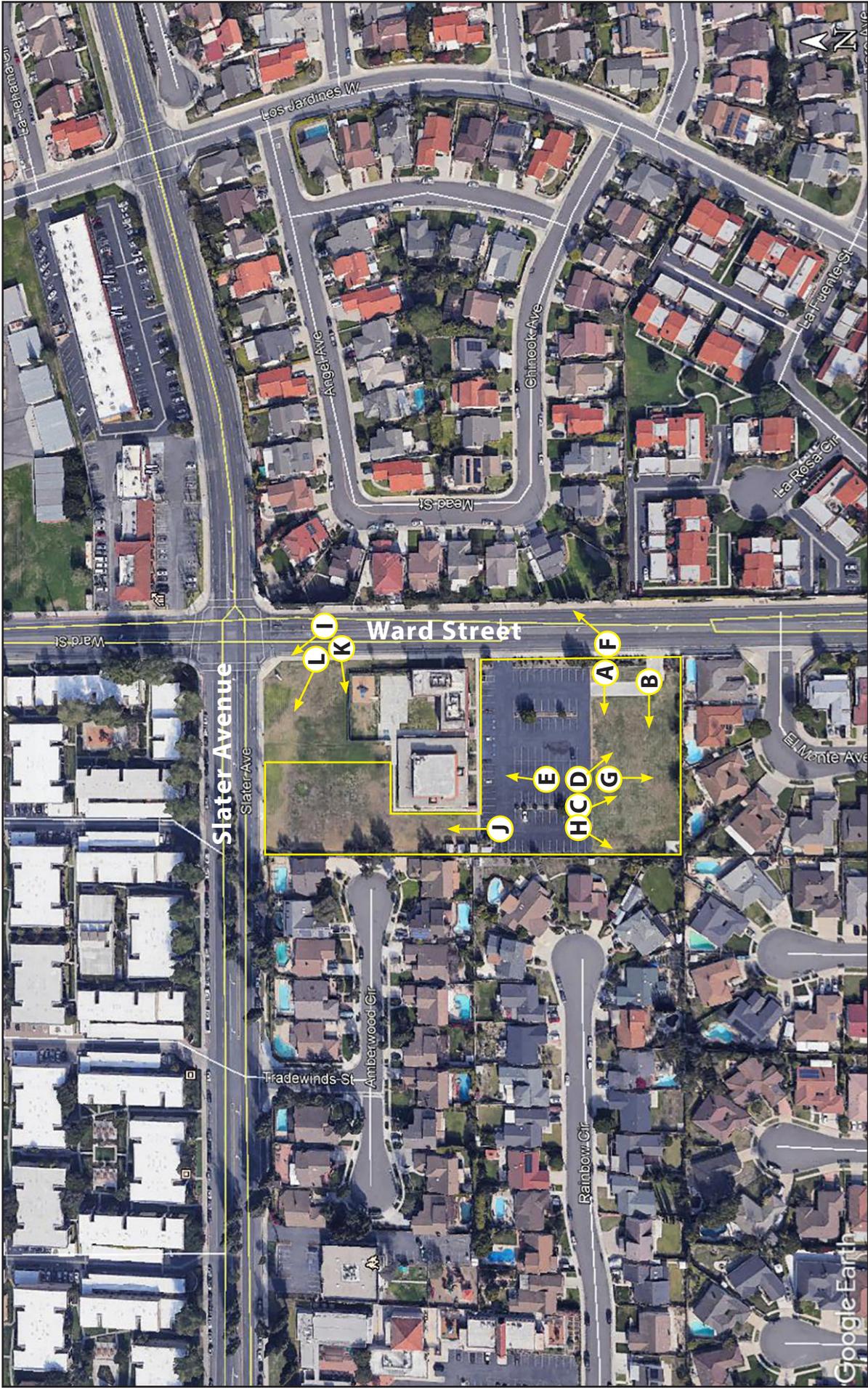
K. Looking west from Ward Street at area north of church proposed for new parking lot.



L. Looking west from Ward Street at new driveway at Slater Avenue. Note homes west of site.

Figure 8

Surrounding Land Use Photos



Source: Google Earth/Phil Martin & Assoc.



Figure 9
Photo Orientation Map

4. Juaneno Band of Mission Indians – Acjachemen Nation
5. Gabrielino – Tongva Tribe
6. Gabrieleno/Tongva San Gabriel Band of Mission Indians

Note: Conducting consultation early in the CEQA process allows tribal governments, lead agencies, and project proponents to discuss the level of environmental review, identify and address potential adverse impacts to tribal cultural resources, and reduce the potential for delay and conflict in the environmental review process. (See Public Resources Code section 21080.3.2) Information may also be available from the California Native American Heritage Commission’s Sacred Lands File per Public Resources Code section 5097.96 and the California Historical Resources Information System administered by the California Office of Historic Preservation. Please also note that Public Resources Code section 21082.3 (c) contains provisions specific to confidentiality.

12. ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is “Potentially Significant Impact” as indicated by the checklist on the following pages.

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

13. Determination: (To be completed by the Lead Agency)

On the basis of this initial evaluation:

- I find that the proposed project COULD NOT have a significant impact on the environment, and a NEGATIVE DECLARATION will be prepared.
- I find that although the proposed project could have a significant impact on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- I find that the proposed project MAY have a significant effect on the environment and an ENVIRONMENTAL IMPACT REPORT is required.
- I find that the proposed project MAY have a “potentially significant impact” or “potentially significant unless mitigated” impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on an earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but must analyze only the effects that remain to be addressed.

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

Signature:

Date

Evaluation of Environmental Impacts:

1. A brief explanation is required for all answers except “No Impact” answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A “No Impact” answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A “No Impact” answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
2. All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
3. Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. “Potentially Significant Impact” is appropriate if there is substantial evidence that an 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,” as described in (5) below may be cross-referenced).
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 identify the following:
 - a) Earlier Analysis Used. Identify and state where they are available for review.
 - b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.

- c) Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
- 6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
- 7) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.
- 8) This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.
- 9) The explanation of each issue should identify:
 - a) the significance criteria or threshold, if any, used to evaluate each question; and
 - b) the mitigation measure identified, if any, to reduce the impact to less than significance.

14. Issues:

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
I. AESTHETICS: Except as provided in Public Resources Code Section 21099, would the project:				
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Substantially damage scenic resources, including but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Create a new source of substantial light or glare that will adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

II. AGRICULTURE and FORESTRY RESOURCES: In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agricultural 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 non-agricultural use? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Conflict with existing zoning for agricultural use, or a Williamson Act contract? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d) Result in the loss of forest land or conversion of forest land to non-forest use? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e) Involve other changes in the existing environment, which due to their location or nature, could individually or cumulatively result in the loss of Farmland, to non-agricultural use or conversion of forest land to non-forest use? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

III. AIR QUALITY: 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Result in a cumulatively considerable net increase of any criteria pollutants for which the project region is non-attainment under an applicable federal or state ambient air quality standard? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c) Expose sensitive receptors to substantial pollutant concentrations? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

IV. BIOLOGICAL RESOURCES: Would the project:

- | | | | | |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|

status species in local or regional plans, policies or regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

- b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?
- 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?
- d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?
- e) Conflict with any local policies or ordinances protecting biological resources, such as tree preservation policy or ordinance?
- f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

V. CULTURAL RESOURCES: Would the project:

- a) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?
- b) Cause a substantial adverse change in the significance of a unique archaeological resource as defined in §15064.5?
- c) Disturb any human remains, including those interred outside of formal cemeteries?

VI. ENERGY: Would the project:

- a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?
- b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

VII. GEOLOGY AND SOILS: Would the project:

- a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury or death involving:
 - i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning map issued by the

State Geologist for the area or based on other substantial evidence of a known fault? (Refer to Division of Mines and Geology Special Publication 42.)

- | | | | | |
|--|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| ii. Strong seismic ground shaking? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| iii. Seismic-related ground failure, including liquefaction? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| iv. Landslides? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Result in substantial soil erosion or loss of topsoil? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of waste water? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

VIII. GREENHOUSE GAS EMISSIONS Would the project:

- | | | | | |
|--|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

IX. HAZARDS AND HAZARDOUS MATERIALS: Would the project:

- | | | | | |
|---|--------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

public or the environment?

- | | | | | |
|--|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| e) For a project located within an airport land use plan, or where such a plan has not been adopted, within two miles of a public airport, will the project result in a safety hazard or excessive noise for people working or residing in the project area? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

X. HYDROLOGY AND WATER QUALITY. Would the project:

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

XI. LAND USE AND PLANNING: Would the project:

- | | | | | |
|---|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| a) Physically divide an established community? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Cause a significant environmental impact due to a conflict with any land use plan, policy or regulation adopted for the purpose of avoiding or mitigation an environmental effect? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

XII. MINERAL RESOURCES: Would the project:

- a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?
- 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?

XIII. NOISE: Would the project result in:

- a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?
- b) Generation of excessive groundborne vibration or groundborne noise levels?
- 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, will the project expose people residing or working in the project area to excessive noise levels?

XIV. POPULATION AND HOUSING: Would the project:

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

XV. PUBLIC SERVICES:

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

XVI. RECREATION:

- a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?
- b) Does the project include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?

XVII. TRANSPORTATION: Would the project:

- a) Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?
- b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?
- c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?
- d) Result in inadequate emergency access?

XVIII. TRIBAL CULTURAL RESOURCES:

- 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 Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

XIX. UTILITIES AND SERVICE SYSTEMS: Would the project:

- a) 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, the construction or relocation of which could cause significant environmental effects?

- b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?
- 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?
- 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?
- e) Comply with federal, state and local management and reduction statutes and regulations related to solid waste?

XX. WILDFIRE – If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:

- a) Substantially impair an adopted emergency response plan or emergency evacuation plan?
- 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?
- 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?
- 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?

XXI. MANDATORY FINDINGS OF SIGNIFICANCE:

- 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?

- b) Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)
- c) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?

15. Explanation of Issues

I. AESTHETICS: Would the project:

- a) **Have a substantial adverse effect on a scenic vista? No Impact.** The project site is not part of any approved or designated scenic vista. Furthermore, the Fountain Valley General Plan does not designate any scenic vista that is either adjacent to or directly visible from the site. The project would not impact a scenic vista.
- b) **Substantially damage scenic resources, including but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway? No Impact.** There are no Officially Designated or Eligible state scenic highways and no scenic resources such as trees, rock outcroppings, or historic buildings within a state scenic highway either adjacent to or in direct view from the site that would be removed or altered by the project. The project would not impact a state scenic resource.
- 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? Less Than Significant Impact.** The project is located within an urbanized area.¹ The project would remove the existing asphalt parking lot on the property to develop twelve single-family garden homes and other supporting site improvements, including an on-site private street, block walls, guest parking, landscaping, open space, etc. The proposed residential units would reflect an Italian architectural style. New landscaping would be installed consisting of ten (10) street trees within the street set-back along the west side of Ward Street and landscaping within the private yards. Sixteen (16) new trees are proposed along the south side of the new driveway that would separate the proposed residential units and the church.

The garden homes would be a maximum height of 28'. The architectural design character includes building elevations that are detailed and articulated with projections and recesses to avoid long and plain surfaces. Building massing would be further minimized through the use of differentiated building materials, and colors and incorporation of architectural features such as recessed balconies and windows and decorative railings. Typical building elevations of the proposed garden homes are shown in Figure 10. The design and architecture of the proposed garden homes along with landscaped private open space would improve the aesthetics of the site for the local residents. The project would

¹ CEQA Guidelines §15387.

be required by the City to comply with the development standards that are required for the requested GH (Garden Homes) zoning for the site. The project would not have any aesthetic impacts.

- d) **Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area? Less Than Significant Impact.** The church and private school would remain and any light and/or glare generated by the existing uses would continue with the project.

New sources of light generated by the project include City required street lights, interior and exterior lighting of each residential unit, landscape lighting and car headlights. These new sources of lighting would increase the amount of light that is currently generated from the site. Private street lighting fixtures will be on sensors for automatic nighttime lighting. Private street lights will include shielding devices and direct or reflect light downward.

Nighttime lighting of the proposed residential units would be visible to the surrounding land uses, including the residents directly west, south and east of the site. The apartments north of the site, north of Slater Avenue would be mostly shielded and buffered by any on-site light and glare by the existing church and private school on the northerly portion of the property. Therefore, the residents of the apartments north of the site would not be impacted by project lighting. The interior light of the two story residents would be directly visible to the existing residents to the south and west. Although interior and exterior lights of the residential units along the southern and western areas of the project would be visible to the residents to the south and east, especially lights of the second story units, the intensity of the light would not be greater than light of other existing residential development in the immediate project area.

While the headlights of the cars that would drive in and out of the site would increase the amount of light and glare on the local streets, the headlights of the cars currently on Ward Street generate light and glare in the immediate project vicinity. While the headlights of the cars generated by the project would increase the amount of nighttime light and glare in the immediate project vicinity, the light and glare would not be new or unique to the immediate area and is not anticipated to significantly impact area residents.

There is minimal glare currently generated from the portion of the site that is proposed for development since it is mostly vacant land and a surface parking lot. Since glare is generated by the existing residences in the immediate project area, glare is not unique to the area. While glare is not new or unique to the site, the project would generate more glare from metal surfaces and glazing of the proposed residential units and other site improvements.

The project would not generate any new sources of light or glare that is significantly greater or different from the light and glare that is generated by the existing residential development adjacent to and surrounding the project site. The project would include outdoor lighting on the proposed residential units that is typical of the exterior lighting on the residential homes in the immediate project vicinity. The street lights of the project would also be similar to other streets lights in the residential development in the project area.

The project must comply with Fountain Valley Municipal Code Section 21.18.060 which sets the standards for the amount of light and glare the project can generate to protect both project residents and the existing residents adjacent to the site. Because the project would not generate greater levels



Source: Keystone Development, Construction Services

Figure 10
Typical Building Elevations

of light or glare that currently exists in the project area and must comply with Fountain Valley Municipal Code Section 21.18.060 the project would not have any significant light or glare impacts.

II. AGRICULTURE AND FORESTRY RESOURCES: 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 non-agricultural use? No Impact.** The project site is vacant except for the Coastal church, parking lot and private school. There is no agricultural use either on or adjacent to the site. The site is designated “Urban and Built-Up Land” by the latest State of California Department of Conservation Orange County Important Farmland 2016 map². The project would not convert prime, unique, or farmland of statewide importance to non-agricultural use and impact farmland.
- b) **Conflict with existing zoning for agricultural use, or a Williamson Act contract? No Impact.** The project site is not in a Williamson Act contract. The existing R-1 (Low Density Residential) zoning designation on the site does not allow agricultural use and the requested GH zone does not allow agricultural use. The project would not conflict with any existing agricultural use or a Williamson Act contract.
- c) **Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))? No Impact.** There are no timber or forests in the City of Fountain Valley. The requested zone change to GH (Garden Homes) does not allow timber or forest production. The project would not impact any forest or timber production.
- d) **Result in the loss of forest land or conversion of forest land to non-forest use? No Impact.** See Response to section “II.c” above.
- e) **Involve other changes in the existing environment, which due to their location or nature, could individually or cumulatively result in the loss of Farmland, to non-agricultural use? No Impact.** The project would not result in the loss of any farmland, either individually or cumulatively, and would have no impact to farmland.

III. AIR QUALITY: Would the project:

- a) **Conflict with or obstruct implementation of the applicable air quality plan? Less Than Significant Impact.** The U.S. Environmental Protection Agency (U.S. EPA) is the primary federal agency for regulating air quality. The EPA implements the provisions of the Federal Clean Air Act (FCAA). This Act establishes National Ambient Air Quality Standards (NAAQS) that are applicable nationwide. The EPA designates areas with pollutant concentrations that do not meet the NAAQS as non-attainment areas for each criteria pollutant. States are required by the FCAA to prepare State Implementation Plans (SIP) for designated non-attainment areas. The SIP is required to demonstrate how the areas would attain the NAAQS by the prescribed deadlines and what measures would be required to attain the standards. The EPA also oversees implementation of the prescribed measures. Areas that achieve the NAAQS after a non-attainment designation are redesignated as maintenance areas and must have approved Maintenance Plans to ensure continued attainment of the NAAQS.

² <ftp://ftp.consrv.ca.gov/pub/dlrp/FMMP/pdf/2016/ora16.pdf>

The California Clean Air Act (CCAA) required all air pollution control districts in the state to prepare plans to reduce pollutant concentrations exceeding the California Ambient Air Quality Standards (CAAQS) and ultimately achieve the CAAQS. The districts are required to review and revise these plans every three years. The South Coast Air Quality Management District (SCAQMD), in which the project is located, satisfies this requirement through the publication of an Air Quality Management Plan (AQMP). The AQMP is developed by SCAQMD and the Southern California Association of Governments (SCAG) in coordination with local governments and the private sector. The AQMP is incorporated into the SIP by the California Air Resources Board (CARB) to satisfy FCAA requirements discussed above.

The CCAA requires plans to demonstrate attainment of the NAAQS for which an area is designated as nonattainment. Further, the CCAA requires SCAQMD to revise its plan to reduce pollutant concentrations exceeding the CAAQS every three years. In the South Coast Air Basin (SCAB), SCAQMD and SCAG, in coordination with local governments and the private sector, develop the AQMP for the air basin to satisfy these requirements. The AQMP is the most important air management document for the basin because it provides the blueprint for meeting state and federal ambient air quality standards.

On December 7, 2012, the 2012 AQMP was adopted by the SCAQMD Governing Board. The primary task of the 2012 AQMP is to bring the basin into attainment with federal health-based standards for unhealthful fine particulate matter (PM_{2.5}) by 2014. The document states that to have any reasonable expectation of meeting the 2023 ozone deadline, the scope and pace of continued air quality improvement must greatly intensify.

AQMPs are required to be updated every three years. The 2016 AQMP was adopted by the SCAQMD Board on March 3, 2017, and has been submitted to the California Air Resources Board for forwarding to the EPA. The 2016 AQMP acknowledges that motor vehicle emissions have been effectively controlled and that reductions in NO_x, the continuing ozone problem pollutant, may need to come from major stationary sources (power plants, refineries, landfill flares, etc.). The current attainment deadlines for all federal non-attainment pollutants are now as follows:

- 8-hour ozone (70 ppb) 2032
- Annual PM-2.5 (12 µg/m³) 2025
- 8-hour ozone (75 ppb) 2024 (old standard)
- 1-hour ozone (120 ppb) 2023 (rescinded standard)
- 24-hour PM-2.5 (35 µg/m³) 2019

The project does not directly relate to the AQMP in that there are no specific air quality programs or regulations governing residential projects. Conformity with adopted plans, forecasts and programs relative to population, housing, employment and land use is the primary yardstick by which impact significance of planned growth is determined. The SCAQMD, however, while acknowledging that the AQMP is a growth-accommodating document, does not favor designating regional impacts as less than significant just because a proposed development is consistent with regional growth projections. Air quality impact significance for the project has therefore been analyzed on a project-specific basis.

The proposed project would not significantly affect regional air quality plans. According to the section XVII. Transportation the project would not generate new or additional vehicle emissions that exceed AQMD adopted thresholds based on the air quality analysis that concludes no significant air quality impact. Therefore, the project is consistent with and would not impact the AQMP.

- b) **Result in a cumulatively considerable net increase of any criteria pollutants for which the project region is non-attainment under an applicable federal or state ambient air quality standard? Less Than Significant Impact.** Cumulative projects include local development as well as general growth within the project area. However, as with most development, the greatest source of emissions is from mobile sources, which travel well out of the local area. Therefore, from an air quality standpoint, the cumulative analysis would extend beyond any local projects and when wind patterns are considered, would cover an even larger area.

The project is located within the SCAB and non-attainment for ozone and PM₁₀ particulate matter. Construction and operation of cumulative projects would further degrade the local air quality, as well as the air quality of the South Coast Air Basin. The greatest cumulative impact on the regional air quality is the incremental addition of pollutants mainly from increased traffic from residential, commercial, and industrial development and the use of heavy equipment and trucks associated with the construction of these projects. Air quality would be temporarily degraded during construction activities that occur separately or simultaneously. However, in accordance with the SCAQMD methodology, projects that do not exceed the SCAQMD criteria or can be mitigated to less than criteria levels are not significant and do not add to the overall cumulative impact.

As stated in section “III.c” below, the project would not generate any short- or long-term air emissions that exceed SCAQMD emission thresholds. Therefore, the project would not have any significant cumulative criteria pollutant impacts.

- c) **Expose sensitive receptors to substantial pollutant concentrations? Potentially Significant Unless Mitigation Incorporated.** An air quality and greenhouse gas report³ was prepared for the project. A copy of the air quality and greenhouse gas report is attached in Appendix A.

Criteria Pollutants, Health Effects, and Standards

Under the Federal Clean Air Act (FCAA), the U.S. EPA has established National Ambient Air Quality Standards (NAAQS) for six major pollutants; ozone (O₃), respirable particulate matter (PM₁₀), fine particulate matter (PM_{2.5}), carbon monoxide (CO), nitrogen dioxide (NO₂), sulfur dioxide (SO₂), and lead. These six air pollutants are often referred to as the criteria pollutants. The NAAQS are two tiered: primary, to protect public health, and secondary, to prevent degradation to the environment (i.e., impairment of visibility, damage to vegetation and property).

Under the California Clean Air Act, the California Air Resources Board has established California Ambient Air Quality Standards (CAAQS) to protect the health and welfare of Californians. State standards have been established for the six criteria pollutants as well as four additional pollutants; visibility reducing particles, sulfates, hydrogen sulfide, and vinyl chloride.

Table 1 presents the state and national ambient air quality standards. A brief explanation of each pollutant and their health effects is presented in the Table 1 footnotes.

Monitored Air Quality

Long-term air quality monitoring is carried out by the SCAQMD at various monitoring stations. The SCAQMD has divided the South Coast Air Basin into 38 air-monitoring areas with a designated ambient air monitoring station representative of each area. There are no nearby stations to the project that

³ Air Quality and GHG Impact Analysis, Villa Serena Project, Giroux & Associates, December 18, 2018.

monitor the full spectrum of pollutants. However, the Anaheim monitoring station that is the closest air monitoring station to the project, monitors measures both regional pollution levels such as smog,

**Table 1
Ambient Air Quality Standards**

Ambient Air Quality Standards							
Pollutant	Averaging Time	California Standards ¹		National Standards ²			
		Concentration ³	Method ⁴	Primary ^{3,5}	Secondary ^{3,6}	Method ⁷	
Ozone (O ₃) ⁸	1 Hour	0.09 ppm (180 µg/m ³)	Ultraviolet Photometry	—	Same as Primary Standard	Ultraviolet Photometry	
	8 Hour	0.070 ppm (137 µg/m ³)		0.070 ppm (137 µg/m ³)			
Respirable Particulate Matter (PM ₁₀) ⁹	24 Hour	50 µg/m ³	Gravimetric or Beta Attenuation	150 µg/m ³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis	
	Annual Arithmetic Mean	20 µg/m ³		—			
Fine Particulate Matter (PM _{2.5}) ⁹	24 Hour	—	—	35 µg/m ³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis	
	Annual Arithmetic Mean	12 µg/m ³	Gravimetric or Beta Attenuation	12.0 µg/m ³			15 µg/m ³
Carbon Monoxide (CO)	1 Hour	20 ppm (23 mg/m ³)	Non-Dispersive Infrared Photometry (NDIR)	35 ppm (40 mg/m ³)	—	Non-Dispersive Infrared Photometry (NDIR)	
	8 Hour	9.0 ppm (10 mg/m ³)		9 ppm (10 mg/m ³)			
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m ³)		—			
Nitrogen Dioxide (NO ₂) ¹⁰	1 Hour	0.18 ppm (339 µg/m ³)	Gas Phase Chemiluminescence	100 ppb (188 µg/m ³)	—	Gas Phase Chemiluminescence	
	Annual Arithmetic Mean	0.030 ppm (57 µg/m ³)		0.053 ppm (100 µg/m ³)			Same as Primary Standard
Sulfur Dioxide (SO ₂) ¹¹	1 Hour	0.25 ppm (655 µg/m ³)	Ultraviolet Fluorescence	75 ppb (196 µg/m ³)	—	Ultraviolet Fluorescence; Spectrophotometry (Pararosaniline Method)	
	3 Hour	—		—			0.5 ppm (1300 µg/m ³)
	24 Hour	0.04 ppm (105 µg/m ³)		0.14 ppm (for certain areas) ¹¹			—
	Annual Arithmetic Mean	—		0.030 ppm (for certain areas) ¹¹			—
Lead ^{12,13}	30 Day Average	1.5 µg/m ³	Atomic Absorption	—	—	High Volume Sampler and Atomic Absorption	
	Calendar Quarter	—		1.5 µg/m ³ (for certain areas) ¹²			Same as Primary Standard
	Rolling 3-Month Average	—		0.15 µg/m ³			
Visibility Reducing Particles ¹⁴	8 Hour	See footnote 14	Beta Attenuation and Transmittance through Filter Tape	No National Standards			
Sulfates	24 Hour	25 µg/m ³	Ion Chromatography				
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m ³)	Ultraviolet Fluorescence				
Vinyl Chloride ¹²	24 Hour	0.01 ppm (26 µg/m ³)	Gas Chromatography				

See footnotes on next page ...

1. California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, and particulate matter (PM10, PM2.5, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.
2. National standards (other than ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM10, the 24 hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above $150 \mu\text{g}/\text{m}^3$ is equal to or less than one. For PM2.5, the 24 hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact the U.S. EPA for further clarification and current national policies.
3. Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.
4. Any equivalent measurement method which can be shown to the satisfaction of the ARB to give equivalent results at or near the level of the air quality standard may be used.
5. National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.
6. National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.
7. Reference method as described by the U.S. EPA. An "equivalent method" of measurement may be used but must have a "consistent relationship to the reference method" and must be approved by the U.S. EPA.
8. On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm.
9. On December 14, 2012, the national annual PM2.5 primary standard was lowered from $15 \mu\text{g}/\text{m}^3$ to $12.0 \mu\text{g}/\text{m}^3$. The existing national 24-hour PM2.5 standards (primary and secondary) were retained at $35 \mu\text{g}/\text{m}^3$, as was the annual secondary standard of $15 \mu\text{g}/\text{m}^3$. The existing 24-hour PM10 standards (primary and secondary) of $150 \mu\text{g}/\text{m}^3$ also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.
10. To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb. Note that the national 1-hour standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the national 1-hour standard to the California standards the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.
11. On June 2, 2010, a new 1-hour SO_2 standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO_2 national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.
Note that the 1-hour national standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the 1-hour national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.
12. The ARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.
13. The national standard for lead was revised on October 15, 2008 to a rolling 3-month average. The 1978 lead standard ($1.5 \mu\text{g}/\text{m}^3$ as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.
14. In 1989, the ARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.

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ozone, 10 and 2.5 micron particulate matter (PM-10, PM-2.5) and nitrogen oxides (NOx). Table 2 summarizes a six year summary of monitoring data for the major air pollutants from this air monitoring station.

Table 2
Air Quality Monitoring Summary (2011-2016)
(Number of Days Standards Were Exceeded, and
Maximum Levels During Such Violations)
(Entries shown as ratios = samples exceeding standard/samples taken)

Pollutant/Standard	2011	2012	2013	2014	2015	2016
Ozone						
1-Hour > 0.09 ppm (S)	0	0	0	2	1	2
8-Hour > 0.07 ppm (S)	1	0	0	6	1	4
8- Hour > 0.075 ppm (F)	0	0	0	4	1	0
Max. 1-Hour Conc. (ppm)	0.088	0.079	0.084	0.111	0.100	0.103
Max. 8-Hour Conc. (ppm)	0.072	0.067	0.070	0.081	0.080	0.074
Carbon Monoxide						
8- Hour > 9. ppm (S,F)	0	0	0	0	0	0
Max 8-hour Conc. (ppm)	2.1	2.3	2.6	2.2	2.2	2.1
Nitrogen Dioxide						
1-Hour > 0.18 ppm (S)	0	0	0	0	0	0
Max. 1-Hour Conc. (ppm)	0.074	0.067	0.082	0.076	0.059	0.064
Inhalable Particulates (PM-10)						
24-hour > 50 µg/m ³ (S)	2/57	0/61	1/59	2/364	11/363	3/353
24-hour > 150 µg/m ³ (F)	0/57	0/61	0/59	0/364	0/363	0/353
Max. 24-Hr. Conc. (µg/m ³)	53	48	77	122	66	74
Ultra-Fine Particulates (PM-2.5)						
24-Hour > 35 µg/m ³ (F)	2/352	4/347	1/331	6/344	3/295	1/349
Max. 24-Hr. Conc. (µg/m ³)	39.2	50.1	37.8	56.2	45.8	44.4

Source: South Coast AQMD Air Monitoring Station Data Summary, Anaheim Station (3176)

The following conclusions can be made from the air emission data in Table 2:

- Photochemical smog (ozone) levels occasionally exceed standards. All state and federal ozone standards have been exceeded 1 percent or less of all days in the past six years. Measurements from more recent years demonstrate progressively improved ozone levels in the area, except for temporary “backsliding” in 2014. While ozone levels are still occasionally elevated, they are much lower than ten to twenty years ago.
- Respirable dust (PM-10) levels occasionally exceed the state standard approximately one percent of measured days. The less stringent federal PM-10 standard has not been exceeded in the last six years.
- The federal ultra-fine particulate (PM-2.5) standard of 35 µg/m³ has been exceeded less than one percent of measurement days in the last six years.

- More localized pollutants such as carbon monoxide, nitrogen oxides, etc. are very low near the project site. There is substantial excess dispersive capacity to accommodate localized vehicular air pollutants such as NOx or carbon monoxide (CO) without any threat of violating applicable AAQS.
- Although complete attainment of every clean air standard is not yet imminent, extrapolation of the steady improvement trend suggests that such attainment could occur within the reasonably near future.

Air Emission Thresholds

The SCAQMD has developed significance thresholds based on the volume of pollution emitted rather than actual ambient air quality because the direct air quality impact of a project is not quantifiable on a regional scale. The SCAQMD California Environmental Quality Act (CEQA) Handbook states that any project in the South Coast Air Basin with daily emissions that exceed any of the identified significance thresholds should be considered as having an individually and cumulatively significant air quality impact. For the purposes of this air quality impact analysis, a regional air quality impact would be considered significant if emissions exceed the SCAQMD significance thresholds identified in Table 3.

**Table 3
SCAQMD Daily Emissions Thresholds of Significance**

Pollutant	Construction	Operations
ROG	75	55
NOx	100	55
CO	550	550
PM-10	150	150
PM-2.5	55	55
SOx	150	150
Lead	3	3

Source: SCAQMD CEQA Air Quality Handbook, November, 1993 Rev.

Additional Indicators

In its CEQA Handbook, the SCAQMD also states that additional indicators should be used as screening criteria to determine the need for further analysis with respect to air quality. The additional indicators are as follows:

- A project could interfere with the attainment of the federal or state ambient air quality standards by either violating or contributing to an existing or projected air quality violation
- A project could result in population increases within the regional statistical area which would be in excess of that projected in the AQMP and in other than planned locations for the project's build-out year.
- A project could generate vehicle trips that cause a CO hot spot.

Short-Term Construction Impacts

Construction activities to develop the project would generate air emissions, toxic air contaminant emissions, and odors during construction. The project construction activities include the demolition of the existing parking lot and other site improvements, grade the site, construct the residential units, trenching for underground utilities, street paving, painting the houses, construction of block walls and other required site improvements.

CalEEMod was developed by the SCAQMD to provide a model to calculate construction emissions and operational emissions for a variety of land use projects. It calculates both the daily maximum and annual average emissions for criteria pollutants as well as total or annual greenhouse gas (GHG) emissions. Although exhaust emissions would result from the operation of on- and off-site motorized equipment, the exact types and numbers of equipment would vary among contractors such that emissions cannot be quantified with certainty. Project construction emissions were estimated by using CalEEMod2016.3.2 computer model to identify the maximum daily emissions for each pollutant during project construction based on the type and number of pieces of construction equipment necessary to develop the project and the estimated time to construct the project. The estimated construction fleet to develop the project is shown in Table 4.

**Table 4
Construction Activity Equipment Fleet**

Phase Name and Duration	Equipment
Demolition (10 days)	1 Concrete Saw
	1 Dozer
	3 Loader/Backhoes
Grading (4 days)	1 Grader
	1 Dozer
	1 Loader/Backhoe
Construction (200 days)	1 Crane
	1 Forklift
	1 Generator Set
	3 Welders
	1 Loader/Backhoes
Paving (10 days)	1 Mixer
	1 Paver
	1 Paving Equipment
	1 Roller
	1 Loader/Backhoe

Referencing the construction equipment fleet and durations shown in Table 4, the worst-case daily construction emissions were calculated by CalEEMod2016.3.2 and are shown in Table 5.

**Table 5
Construction Activity Emissions
Maximum Daily Emissions (pounds/day)**

Maximal Construction Emissions	ROG	NOx	CO	SO₂	PM-10	PM-2.5
Year 2020						
Unmitigated	13.8	22.7	15.4	0.0	5.7	3.2
Mitigated	13.8	22.7	15.4	0.0	3.0	1.8
SCAQMD Thresholds	75	100	550	150	150	55

As shown in Table 5, peak daily construction activity emissions are estimated to be below SCAQMD CEQA thresholds without the need for mitigation measures. The only mitigation measure that was included in the CalEEMod2016.3.2 air model program was watering exposed dirt surfaces two times a day to minimize the generation of fugitive dust during grading activities.

Construction equipment exhaust emissions contain carcinogenic compounds within the diesel exhaust particulates. The toxicity of diesel exhaust is evaluated relative to a 24-hour per day, 365 days per year, 70-year lifetime exposure. The SCAQMD does not generally require the analysis of construction-related diesel emissions relative to health risk due to the short period for which the majority of diesel exhaust would occur. Health risk analyses are typically assessed over a 9-, 30-, or 70-year timeframe and not over a relatively brief construction period due to the lack of health risk associated with such a brief exposure.

Localized Significance Thresholds

The SCAQMD has developed analysis parameters to evaluate ambient air quality on a local level in addition to the more regional emissions-based thresholds of significance. These analysis elements are called Localized Significance Thresholds (LSTs). LSTs were developed in response to Governing Board's Environmental Justice Enhancement Initiative 1-4 and the LST methodology was provisionally adopted in October 2003 and formally approved by SCAQMD's Mobile Source Committee in February 2005.

For the project, the primary source of a possible LST impact would be during project construction and not the operation of the project. LSTs are applicable for a sensitive receptor where it is possible that an individual could remain for 24 hours such as a residence, hospital or convalescent facility, which in this case the existing residents adjacent to the project are considered sensitive receptors

LSTs are only applicable to the following criteria pollutants: oxides of nitrogen (NOx), carbon monoxide (CO), and particulate matter (PM-10 and PM-2.5). LSTs represent the maximum emissions from a project that are not expected to cause or contribute to an exceedance of the most stringent applicable federal or state ambient air quality standard, and are developed based on the ambient concentrations of that pollutant for each source receptor area and distance to the nearest sensitive receptor.

LST screening tables are available for 25, 50, 100, 200 and 500-meter source-receptor distances. For the proposed project the nearest sensitive receptors are the residences adjacent to and south and west of the project and therefore, the most conservative 25-meter distance was modeled.

The SCAQMD has issued guidance on applying CalEEMod to LSTs. LST pollutant screening level concentration data is currently published for various size sites and varying distances. For this project, the most stringent thresholds for a 1-acre site were applied. Table 6 shows the estimated LST emissions and thresholds.

**Table 6
LST and Project Emissions (pounds/day)**

LST 1 acre/25 meters N. Coastal Orange County	CO	NOx	PM-10	PM-2.5
LST Threshold	535	69	4	3
Max On-Site Emissions				
Unmitigated	15	22	6	3
Mitigated	15	22	3	2

The project LSTs were compared to the maximum daily construction activities. As shown in Table 6, project construction emissions would meet the LST construction thresholds and be less than significant. Although project construction activities are not calculated to generate dust emissions that would exceed SCAQMD thresholds, minimizing construction emissions through enhanced dust control measures is recommended because the project is located in the SCAB and non-attainment for PM-2.5. The following measure is recommended to minimize PM-2.5 dust emissions during project grading and construction:

Mitigation Measure No. 1 The project contractor shall implement the following dust control measures throughout project demolition, grading and construction:

- Apply soil stabilizers or moisten inactive areas.
- Water exposed surfaces as needed to avoid visible dust leaving the construction site (typically 2-3 times/day).
- Cover all stock piles with tarps at the end of each day or as needed.
- Provide water spray during loading and unloading of earthen materials.
- Minimize in-out traffic from construction zone
- Cover all trucks hauling dirt, sand, or loose material and require all trucks to maintain at least two feet of freeboard
- Sweep streets daily if visible soil material is carried out from the construction site

Similarly, construction ozone precursor emissions (ROG and NOx) are calculated to be below SCAQMD thresholds as shown in Table 5. However, because of the regional non-attainment for photochemical smog, the use of reasonably available control measures for diesel exhaust is recommended. The following measure is recommended to minimize ROG and NOx emissions during project construction:

Mitigation Measure No. 2 The project contractor shall implement the following measures throughout project demolition, grading and construction:

- Utilize well-tuned off-road construction equipment.

- Establish a preference for contractors using Tier 3 (engines rated 75 to 174 brake horsepower) or better rated heavy equipment.
- Enforce 5-minute idling limits for both on-road trucks and off-road equipment.

Long-Term Operational Emissions

Operational emissions were calculated using CalEEMod2016.3.2. In addition to mobile source emissions from motor vehicles, residential development generates smaller amounts of “area source” air emissions that are generated from on-site energy consumption and off-site electrical generation. These energy emission sources represent a minimal percentage of the total project NOx and CO emissions along with a few percent of other emissions. The inclusion of such emissions adds negligibly to the total project emissions as shown in Table 7.

**Table 7
Daily Operational Impacts**

Source	Operational Emissions (lbs./day)					
	ROG	NOx	CO	SO ₂	PM-10	PM-2.5
Area	3.6	0.3	7.1	0.0	0.9	0.9
Energy	0.0	0.1	0.0	0.0	0.0	0.0
Mobile	0.3	1.1	3.7	0.0	1.1	0.3
Total	3.9	1.4	10.9	0.0	2.0	1.2
SCAQMD Threshold	55	55	550	150	150	55
Exceeds Threshold?	No	No	No	No	No	No

As shown in Table 7, the project would not generate any operational air emissions that exceed their respective SCAQMD significance thresholds. Therefore, the operational emissions of the project are less than significant.

The residences north, south, east and west of the project, the Coastal church and the private school are all considered sensitive land uses. Because the project would not generate any air emissions that exceed adopted emission thresholds, the adjacent residents, Coastal church and private school would not be exposed to substantial pollutant concentrations. Therefore, the project would not significantly impact any sensitive receptors.

- d) **Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people? No Impact.** The proposed residential project, like other similar single-family detached residential projects in the City of Fountain Valley, would not generate any odors and impact existing adjacent residents or the Coastal church and private school adjacent to and north of the project. The project would not generate any objectionable odors that would impact any area sensitive receptors.

IV. BIOLOGICAL RESOURCES: Would the project:

- a) **Have substantial adverse effects, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies or regulations or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service? No Impact.** The site is developed with the Coastal church and a private school. The rest of the site is vacant. There is minimal vegetation on the site and the vegetation that is present includes introduced landscaping and turf. There are no wildlife species on the site. None of the

existing landscaping is a candidate for a sensitive or special status species. The project would not impact wildlife or wildlife habitat.

- b) **Have substantial adverse impact on any riparian habitat or other natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service? No Impact.** The site was disturbed in the past with the development of the site with the Coastal church and adjacent private school. There is no riparian habitat or other natural communities either on or adjacent to the site. The project would not impact any riparian or other natural communities.
- 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? No Impact.** Please see section "IV.b" above.
- 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? No Impact.** The project is located in an urbanized area and there is no habitat on the site that serves as a migratory wildlife corridor. The project would not impact or impede any wildlife corridors or migratory wildlife species.
- e) **Conflict with any local policies or ordinances protecting biological resources, such as tree preservation policy or ordinance? No Impact.** There are approximately seventeen non-native trees located throughout the site that would be removed by the project. None of the existing trees are protected by a local policy or ordinance that prohibits their removal. The project would not impact any local policies that protect biological resources, including trees.
- f) **Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan? No Impact.** The City of Fountain Valley is not located within an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. The project would not conflict with or impact a conservations plan.

V. CULTURAL RESOURCES: Would the project:

- a) **Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5? No Impact.** None of the existing buildings on the site would be demolished with the development of the project. The project proposes to remove the existing parking lot to allow development of the residential units. The parking lot is not considered a historical resource as defined by §15064.5 of the CEQA Guidelines. The Fountain Valley General Plan does not identify the presence of any historical resources in Fountain Valley. The site has been disturbed in the past to allow construction of the existing site improvements, including the church, private school, parking lot and utilities to serve the existing uses. Because the site has been disturbed and historical resources are not known to exist in Fountain Valley, it is unlikely that any archaeological resources would be uncovered during project construction. The project would not impact any historical resources.
- b) **Cause a substantial adverse change in the significance of a unique archaeological resource as defined in §15064.5? No Impact.** Please see section "V.a" above.
- c) **Disturb any human remains, including those interred outside of formal cemeteries? No Impact.** The project site has not been used as a cemetery in the past. In addition, the site is not known to have

been used for any activities that have resulted in human remains being present on the property. In the unlikely event that human remains are found during construction, those remains would require proper treatment, in accordance with applicable laws. State of California Health and Safety Code Section 7050.5-7055 describe the general provisions for human remains. Specifically, Health and Safety Code Section 7050.5 describes the requirements if any human remains are accidentally discovered during excavation of a site. As required by State law, the requirements and procedures set forth in Section 5097.98 of the California Public Resources Code would be implemented, including notification of the County Coroner, notification of the Native American Heritage Commission, and consultation with the individual identified by the Native American Heritage Commission to be the “most likely descendant.” If human remains are found during excavation, the excavation must stop in the vicinity of the find and in any area that is reasonably suspected to contain remains adjacent to the find, until the County Coroner has been called, the remains have been investigated, and appropriate recommendations have been made for the treatment and disposition of the remains. Following compliance with State regulations, which detail the appropriate actions necessary in the event human remains are encountered, impacts in this regard would be considered less than significant.

Compliance with Health and Safety Code Sections 7050.5-7055 and Public Resources Code Section 5097.98, related to protection of human remains would reduce potential impacts associated with future development project proposals to a less than significant level.

VI. ENERGY: Would the project:

- a) ***Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation? Less Than Significant Impact.*** Information found in this section, as well as other aspects of the project’s energy implications, are discussed in greater detail elsewhere in this MND, including section VIII (Greenhouse Gas Emissions) and section XVII (Transportation) of this MND.

Construction-Related Energy Consumption

Heavy-duty construction equipment associated with demolition, grading, the construction of utilities, paving, and building construction would include, excavators, graders, tractors/loaders/backhoes, dozers, scrapers, air compressors, cranes, forklifts, generators, pumps, welders, rollers, trenchers and pavers. The majority of the equipment would likely be diesel-fueled; however, smaller equipment, such as air compressors and forklifts may be electric, gas, or natural gas-fueled. For the purposes of this assessment, it is assumed that the construction equipment would be diesel-fueled, due to the speculative nature of specifying the amounts and types of non-diesel equipment that might be used, and the difficulties in calculating the energy, which would be consumed by this non-diesel equipment.

The number of construction workers required to construct the project would vary based on the phase of construction and the activity taking place. The transportation fuel required by construction workers to travel to and from the site would depend on the total number of worker trips estimated for the duration of construction activity. A 2007 study by the California Department of Transportation (Caltrans) estimates the statewide average fuel economy for all vehicle types (automobiles, trucks, and motorcycles) in the year 2020 is 18.78 miles per gallon.⁴ Assuming construction worker vehicles have an average fuel economy consistent with the Caltrans study and each construction worker commutes an average of 20 miles a day to and from the site, the maximum 20 workers on-site during each phase of the project is estimated to consume approximately 22 gallons of gasoline a day. Assuming all 20 construction workers are employed at the site for a year (52 weeks), the fuel used by construction

⁴ 2007 California Motor Vehicle Stock, Travel and Fuel Forecast, California Department of Transportation, Table 1, (2008).

workers commuting to the site is approximately 143 barrels (5,720 gallons) of gasoline and represents less than 0.00004 percent of the statewide transportation gasoline consumption in 2016, which is the latest year that data is available.⁵

Construction equipment fuels (e.g., diesel, gasoline, natural gas) would be provided by local or regional suppliers and vendors. Electricity would be supplied by the local utility provider (e.g., Southern California Edison) via existing connections. A temporary water supply, primarily for fugitive dust suppression and street sweeping, would also be supplied by the local provider (e.g., City).

Electricity used during construction to provide temporary power for lighting and electronic equipment (e.g., computers, etc.) inside temporary construction trailers and for outdoor lighting when necessary for general construction activity would generally not result in a substantial increase in on-site electricity use. Electricity use during construction would be variable depending on lighting needs and the use of electric-powered equipment and would be temporary for the duration of construction activities. Thus, electricity use during construction would generally be considered negligible.

Energy Conservation: Regulatory Compliance

The project would utilize construction contractors who demonstrate compliance with applicable CARB regulations governing the accelerated retrofitting, repowering, or replacement of heavy-duty diesel on- and off-road equipment. CARB has adopted an Airborne Toxic Control Measure to limit heavy-duty diesel motor vehicle idling in order to reduce public exposure to diesel particulate matter and other Toxic Air Contaminants (TACs). Compliance with the above anti-idling and emissions regulations would result in a more efficient use of construction-related energy and minimize or eliminate wasteful and unnecessary consumption of energy.

With respect to solid waste, CALGreen requires 65% of most construction and demolition waste be diverted from a landfill. The project would generate various types of debris during project demolition and construction. Concrete and asphalt that is removed from the site during demolition can either be ground and reused on the site as base material for driveways or sold to a recycler.

Republic Services is the current contract solid waste hauler for the City of Fountain Valley and would serve the project. The solid waste that is collected in Fountain Valley is taken to a Materials Recovery Facility (MRF) in Huntington Beach. All recyclables are recovered and the remaining solid waste is taken to the Frank R. Bowerman Landfill. The City of Fountain Valley adopted a Source Reduction and Recycling Element (SRRE) in 1992 that outlines the City's commitment to a 25% solid waste reduction by 1995 and a 50% reduction by 2000. The solid waste generated by the project would be recycled and the materials that cannot be recycled would be hauled to the Frank R. Bowerman Landfill. The city's waste hauler would actively recycle the solid waste generated by the project to reduce the amount of material that is hauled to the Frank R. Bowerman Landfill. The project would not have a significant solid waste impact on the capacity of the Frank R. Bowerman Landfill.

Anticipated Energy Consumption

The daily operation of the project would generate a demand for electricity, natural gas, and water supply, as well as generating wastewater requiring conveyance, treatment and disposal off-site, and solid waste requiring off-site disposal. Southern California Edison is the electrical purveyor in the City

⁵California 2015 Transportation gasoline consumption – 348,830 thousand barrels;
https://www.eia.gov/state/seds/sep_fuel/html/pdf/fuel_mg.pdf

of Fountain Valley and would provide electricity to the project. The Southern California Gas Company is the natural gas purveyor in the City of Fountain Valley would provide natural gas to the project.

Energy Conservation: Regulatory Compliance

The California Energy Commission (CEC) first adopted the Energy Efficiency Standards for Residential and Nonresidential Buildings (CCR, Title 24, Part 6) in 1978 in response to a legislative mandate to reduce energy consumption in the state. Part 11 of the Title 24 Building Standards Code is referred to as CALGreen. The purpose of CALGreen is to “improve public health, safety and general welfare by enhancing the design and construction of buildings through the use of building concepts having a positive environmental impact and encouraging sustainable construction practices in the following categories: (1) Planning and design; (2) Energy efficiency; (3) Water efficiency and conservation; (4) Material conservation and resource efficiency; and (5) Environmental quality.”⁶ As of January 1, 2011, CALGreen is mandatory for the construction of all new buildings in the state. CALGreen establishes mandatory measures for new residential and non-residential buildings. Such mandatory measures include energy efficiency, water conservation, material conservation, planning and design and overall environmental quality.⁷ CALGreen was most recently updated in 2016 to include new mandatory measures for residential as well as nonresidential uses; the new measures took effect on January 1, 2017.⁸ The project would be required by the City to comply with the applicable provisions of Title 24 and CALGreen.

With respect to solid waste, the project is required to comply with applicable regulations, including those pertaining to waste reduction and recycling as required by the City of Fountain Valley Source Reduction and Recycling Element and the State of California. Waste haulers serving the project would divert project-generated municipal waste in accordance with applicable city ordinances.

Energy Conservation: Project Design Features

The project would be designed to include green building, energy saving, and water saving measures and other sustainability features. Consistent with the CALGreen, the project would be required to meet and comply with the residential mandatory measures that include water efficiency and conservation, material conservation and resource efficiency, environmental quality, etc. As such, the project would be designed to reduce wasteful, inefficient, and unnecessary consumption of energy.

Estimated Energy Consumption

The long-term operation of the project would result in transportation energy use primarily for residents that commute to and from their place of employment. Transportation fuels, primarily gasoline, would be provided by local or regional suppliers and vendors. As discussed previously, in 2016, California consumed a total of 348,830 thousand barrels of gasoline for transportation, which is part of the total annual consumption nationwide of 3,410,051 thousand barrels by the transportation sector.⁹ Project-related vehicles would require a fraction of a percent of the total state’s transportation fuel consumption. A 2008 study by Caltrans determined that the statewide average fuel economy for all vehicle types (automobiles, trucks, and motorcycles) in 2020 would be 18.78 miles per gallon.¹⁰

⁶ California Building Standards Commission, 2016 California Green Building Standards Code, (2016).

⁷ Ibid.

⁸ Ibid.

⁹ U.S. Energy Information Administration, Table F3: Motor Gasoline Consumption, Price, and Expenditure Estimates, 2016, https://www.eia.gov/state/seds/sep_fuel/html/pdf/fuel_mg.pdf.

¹⁰ California Department of Transportation, 2008 California Motor Vehicle Stock, Travel and Fuel Forecast (June 2009).

The project's estimated passenger vehicle miles traveled (VMT) is estimated to be 617,800 miles per year.¹¹ With an average fuel economy of 18.78 miles per gallon, the project residents would consume approximately 32,896 gallons (822 barrels) of fuel a year associated with passenger cars. The project would consume less than 0.0002% of the statewide annual gasoline consumption.

Alternative-Fueled Vehicles

Alternative-fueled, electric, and hybrid vehicles could be used by some project residents. The use of these types of alternative fueled vehicles would reduce the overall consumption of gasoline by the project. The effect is anticipated to be minimal in today's current vehicle market due to the relatively few number of alternative vehicles that are in use. According to the Los Angeles Times, alternative-fueled vehicles make up approximately 2.3% of all vehicles registered in California.¹² The above transportation fuel estimates for the project do not account for alternative-fueled, electric, and hybrid vehicles, which are more energy efficient vehicles. Thus, the assessment is a conservative estimate of transportation fuel consumption. The project would not have any wasteful, inefficient or unnecessary consumption of energy resources during either project construction or the life of the project because the project would be required to comply with all applicable state energy conservation measures.

- b) ***Conflict with or obstruct a state or local plan for renewable energy or energy efficiency? Less Than Significant Impact.*** The project would be required by the City to comply with all applicable CALGreen and Title 24 state energy requirements to minimize energy consumption. Therefore, the project would not conflict with or obstruct a state or local energy plan. The project would not significantly impact an energy plan.

VII. GEOLOGY AND SOILS: Would the project:

- a) ***Director or indirectly cause 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.) Less Than Significant Impact.*** A geotechnical report¹³ was prepared for the project. A copy of the report is included in Appendix B.

The project site is not located within a state-designated Alquist-Priolo Earthquake Fault Zone for surface fault rupture hazards. No active or potentially active faults are known to pass directly beneath the site. The potential for surface rupture due to faulting occurring beneath the site during the design life of the proposed development is considered low.

The site is located in the seismically active Southern California region, and could be subject to moderate to strong ground shaking in the event of an earthquake on one of the many active faults in Southern California. The closest active fault to the site is the San Joaquin Hills fault and located approximately 1.7 miles southwest of the site. The Newport-Inglewood fault zone is located approximately 4 miles southwest of the site and the second closest known fault to the site.

¹¹ 806 VMT/day times 365 days times 2.1 drivers/dwelling unit = 617,800 miles/year.

¹² Los Angeles Times, Electric, hybrid car sales up, California auto emissions down, May 22, 2014, <http://www.latimes.com/business/autos/la-fi-hy-electric-vehicle-sales-up-auto-emissions-down-20140521-story.html>. Accessed August 2014.

¹³ Geotechnical Investigation Report Proposed Residential Buildings, 10460 Slater Avenue, Fountain Valley, CA, Geoboden Inc., July 28, 2018.

Groundshaking may occur along other active faults in the region. However, due to their distance from the project and smaller anticipated earthquakes they would generate lower horizontal acceleration rates than either the San Joaquin Hills or Newport-Inglewood fault. While there are faults in the region that could generate moderate to significant ground shaking at the site, the incorporation of the recommendations in the soils report regarding design and the construction of the garden homes in compliance with the 2016 California Building Codes (CBC) and other site improvements would reduce potential fault impacts to less than significant.

- ii. **Strong seismic ground shaking? Less Than Significant Impact.** Because the project site is located in Southern California and a seismically active area, there is the potential for strong ground motion at the site. As with all projects in the City of Fountain Valley, the design and construction of the garden homes and all site improvement must comply with the current California Building Code (CBC) and would reduce potential strong ground shaking impacts to less than significant.
- iii. **Seismic-related ground failure, including liquefaction? Less Than Significant Impact.** Liquefaction is a phenomenon when loose, saturated, relatively cohesionless soil deposits lose their shear strength during strong ground motions. The primary factors controlling liquefaction include intensity and duration of ground motion, gradation characteristics of the subsurface soils, in-situ stress conditions, and the depth to groundwater. Liquefaction is typified by a loss of shear strength in the liquefied layers due to rapid increases in pore water pressure generated by earthquake accelerations.

The project site is located in an area that is mapped as potentially liquefiable on the State of California Seismic Hazards Zones Map (CDMG, 1997). As discussed in Section 4.2 *Groundwater Conditions* of the geotechnical report¹⁴ groundwater was encountered during an exploratory boring at a depth of approximately 20 feet below ground surface (bgs). The historic high ground water level in the site vicinity is at a depth of approximately 5 feet bgs. A liquefaction analysis was conducted for the site to determine if the site is subject to liquefaction. Based on the results of the liquefaction analysis, the project site is not subject to potential liquefaction that would adversely impact the project.¹⁵ Therefore, the potential for the project to be impacted by liquefaction is less than significant.

- iv. **Landslides? No Impact.** The project site and the developed land adjacent to and surrounding the site are flat. There are no hills, slopes or other topographic relief features either on or adjacent to the site that would impact the project by a landslide. The project would not generate or be impacted by a landslide.
- b) **Result in substantial soil erosion or loss of topsoil? Less Than Significant Impact.** The City would require the grading and construction contractor to install and maintain all applicable City required short-term construction soil erosion control measures to reduce and minimize soil erosion impacts throughout project grading and construction. The contractor would be required to submit a Storm Water Pollution Prevention Plan (SWPPP) to identify all Best Management Practices (BMPs) that would be incorporated into the project prior to the start of grading and maintained to completion of all construction activities to reduce and minimize soil erosion. The City has standard soil erosion protection measures that the contractor would be required to install and maintain throughout grading and construction to minimize off-site soil erosion. The requirement by the City for the contractor to

¹⁴ Geotechnical Investigation Report Proposed Residential Buildings, 10460 Slater Avenue, Fountain Valley, CA, Geoboden Inc. July 28, 2018, page 3.

¹⁵ Ibid, Section 6.0, page 5.

incorporate all applicable mandated soil erosion control measures into project construction would minimize and reduce potential soil erosion impacts to less than significant.

- 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? Less Than Significant Impact.*** There are no known unstable geologic or soil conditions either on or adjacent to the site that would impact the project. There are no geologic or soil constraints in addition to liquefaction that would become unstable due to the development of the project as proposed. As stated in section “VII.a.iii” above, the project is located in an area that has been mapped by the state as a liquefaction area. However, as discussed, the site would not be significantly impacted by liquefaction due to the absence of groundwater close enough to the ground surface to impact the project by liquefaction. Based on the soils report, there are no other existing soil or geotechnical conditions at the site that could significantly impact the project.¹⁶
- d) ***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 Impact.*** The geotechnical report did not identify any expansion soil on the site. Therefore, given CBC requirements the project would not be significantly impacted by expansive soil.
- e) ***Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of waste water? No Impact.*** The existing church and school on the site are served by an existing underground public sewer line in Ward Street. The project proposes to connect to the existing sewer line in Ward Street as required by the City. The City would not allow the project to use individual septic tanks for wastewater disposal. The project would not have any septic tank or alternative wastewater disposal impacts.
- f) ***Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? Less Than Significant Impact.*** The Fountain Valley General Plan does not identify the presence of any paleontological resources in Fountain Valley. The area of the site that is proposed for development was disturbed in the past during the construction of the existing site improvements, including the church, private school, parking lot and utilities to serve the existing uses. Because the site has been disturbed and paleontological resources are not known to exist in Fountain Valley, it is unlikely that paleontological resources would be uncovered during project construction. The project would not impact paleontological resources.

VIII. GREENHOUSE GAS EMISSIONS: Would the project:

- a) ***Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment? Less Than Significant Impact.*** “Greenhouse gases” (so called because of their role in trapping heat near the surface of the earth) emitted by human activity are implicated in global climate change, commonly referred to as “global warming.” Greenhouse gases contribute to an increase in the temperature of the earth’s atmosphere by transparency to short wavelength visible sunlight, but near opacity to outgoing terrestrial long wavelength heat radiation in some parts of the infrared spectrum. The principal greenhouse gases (GHGs) are carbon dioxide, methane, nitrous oxide, ozone, and water vapor. For purposes of planning and regulation, Section 15364.5 of the California Code of Regulations defines GHGs to include carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons and sulfur hexafluoride. Fossil fuel consumption in the transportation sector (on-road motor vehicles, off-highway mobile sources, and aircraft) is the single

¹⁶ Geotechnical Investigation Report Proposed Residential Buildings, 10460 Slater Avenue, Fountain Valley, CA, Geoboden Inc. July 28, 2018, page 5.

largest source of GHG emissions, accounting for approximately half of GHG emissions globally. Industrial and commercial sources are the second largest contributors of GHG emissions with about one-fourth of total emissions.

In response to the requirements of SB 97, the State Resources Agency developed guidelines for the treatment of GHG emissions under the California Environmental Quality Act (CEQA) Guidelines (Guidelines). These new guidelines became state laws as part of Title 14 of the California Code of Regulations in March, 2010. Based on the Guidelines, a project would have a potentially significant impact if it:

- Generates GHG emissions, directly or indirectly, that may have a significant impact on the environment, or;
- Conflicts with an applicable plan, policy or regulation adopted to reduce GHG emissions.

Section 15064.4 of the Guidelines specifies how significance of GHG emissions is to be evaluated. Emissions may be quantitative, qualitative or based on performance standards. The Guidelines allow the lead agency to “select the model or methodology it considers most appropriate.” The most common practice for transportation/combustion GHG emissions quantification is to use a computer model such as CalEEMod, which was used for this project.

In September 2010, the SCAQMD CEQA Significance Thresholds GHG Working Group released revisions that recommended a threshold of 3,000 MT CO₂e for all land use projects. This 3,000 MT/year recommendation has been used as a guideline for the GHG analysis for this project. In the absence of an adopted numerical threshold of significance, project related GHG emissions in excess of the guideline level are presumed to trigger a requirement for enhanced GHG reduction at the project level.

Construction Activity GHG Emissions

For the GHG analysis, the project is assumed to be constructed within one year. During project construction, the CalEEMod2016.2.2 computer model predicts that the construction activities would generate the annual CO₂e emissions shown in Table 8.

Table 8
Construction Emissions (Metric Tons CO₂e)

	CO₂e
Year 2019	212.5
Amortized	7.1

The SCAQMD policy is to amortize construction GHG emissions over a 30-year lifetime. As shown in Table 9, the amortized construction emission level is 7.1 metric tons CO₂e. The GHG impacts from project construction are less than significant.

Project Operational GHG Emissions

The total operational and annualized construction emissions for the proposed project are shown in Table 9. As shown, the total project GHG emissions are below the SCAQMD recommended significance threshold of 3,000 MT. The operations of the project would not result in the generation of a significant level of greenhouse gases.

**Table 9
Proposed Operational Emissions**

Consumption Source	
Area Sources	4.1
Energy Utilization	47.4
Mobile Source	208.0
Solid Waste Generation	7.0
Water Consumption	6.1
Construction	7.1
Total	297.7
Guideline Threshold	3,000
Exceeds Threshold?	No

Consistency with GHG Plans, Programs and Policies

The City of Fountain Valley does not have an adopted Greenhouse Gas Reduction Plan. Therefore, the applicable GHG planning document is AB-32. As discussed above and shown in Table 9 above, the project is estimated to generate approximately 297.7 MTCO₂e per year, which is below the SCAQMD threshold of 3,000 MTCO₂e per year for all land use types. The project complies with the reduction goals of AB-32. The project would not have any significant GHG impact.

- b) **Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases? No Impact.** As discussed in section “VIII.a” above, the project would not have a significant increase in either construction or operational GHG emissions. As a result, the project generated GHG emissions are below the recommended SCAQMD threshold of 3,000 MT/year. The project would not impact and conflict with any applicable plan, policy, or regulations to reduce GHG emissions.

IX. HAZARDS AND HAZARDOUS MATERIALS: Would the project:

- a) **Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials? Potentially Significant Unless Mitigation Incorporated.** A Phase I¹⁷ Environmental Site Assessment (ESA) was prepared for the site. The Phase I ESA is included in Appendix C.

Property History Summary:

Based on historical data the project site was utilized for agricultural purposes in at least 1953 and ceased in 1963. It is possible that pesticides were used on the site during the time the site was in agricultural use. Unlike chemicals today that are applied in diluted concentrations and degrade relatively quickly, the pesticides that were applied prior to 1980 can linger in the soil for many years. It is not known if environmentally persistent pesticides were applied on the site in the past.

The Phase I ESA did not identify any hazardous materials on or adjacent to the site. Based on the results of the site reconnaissance and records search the project would not have any significant

¹⁷ Phase I Environmental Assessment, Church Property, 10460 Slater Avenue, Fountain Valley, CA 92708, January 23, 2019, Keystone DCS, Inc.

hazardous impacts associated with lead based paint, asbestos contain materials, PCBs or other hazardous materials.

The following measure is recommended to reduce potential impacts associated with the presence of pesticides in the on-site soils, if present.

Mitigation Measure 3 Prior to the issuance of a grading permit the developer shall submit proof to the City's satisfaction that one of the following two options to reduce pesticide levels to meet accepted Environmental Protection Agency (EPA) and County of Orange Health Care Agency (COHCA) requirements have been completed.

- The on-site soils shall be tested for the presence of pesticides.
- Remove and dispose of the soil from the site where pesticides are detected above regulated levels.
- Through a corrective grading process, which consists of digging out soil containing pesticides along with a large quantity of underlying soil that does not contain pesticide concentrations, followed by further testing to confirm whether the resulting concentrations of pesticides in soil require further management as either a California hazardous waste or concern based on levels above the EPA Regional Screening Levels (RSLs).

The implementation of the above mitigation measure would reduce potential pesticide impacts to the public or the environment through the routine transport, use or disposal of hazardous materials to less than significant.

- b) ***Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment? Less Than Significant Impact.*** There are no uses or activities associated with the proposed residential project, other than the potential for pesticides in the on-site soils as discussed above in section "IX.a" that would create or release hazardous materials into the environment. The project would not have any significant hazard impacts to the public or environment involving the release of a hazardous material.
- c) ***Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school? Less Than Significant Impact.*** The closest school to the project is the private church school that is adjacent to the church and north and adjacent to the area of the site proposed for the development of the 12 garden homes. The closest public school to the site is Cox Elementary School that is located at 17615 Los Jardines East and approximately one-half miles east of the site. There are no activities associated with the construction of the project or throughout the life-time of the project that would impact either the private school adjacent to the site or Cox Elementary School.

Hazardous materials such as diesel fuel, lubricants, and paint would be stored and used at the site during project construction. The hazardous materials that would be used and stored during project construction are required by law to be stored and locked in a safe area. The project contractor is responsible for the safe use and storage of all hazardous materials during project construction. The use and storage of hazardous materials in compliance with all applicable state and local laws and

regulations during project construction would reduce potential hazardous emission impacts to both the private school adjacent to the site and Cox Elementary School to less than significant.

Once constructed, project residents would use typical household cleaning materials to clean and maintain their residence. The use and storage of standard household cleaning and janitorial materials would not have any significant hazardous impacts to either the private school adjacent to the project or Cox Elementary School.

- d) ***Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or environment? No Impact.*** Based on the Phase I ESA the project site is not listed as a hazardous material site on the “Cortese” list pursuant to Government Code Section 65962.5. The project would not have a hazardous impact to the public or environment per Government Code Section 65962.5.
- 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, would the project result in a safety hazard or excessive noise for people working or residing in the project area? No Impact.*** The closest airport to the project is John Wayne Airport, which is a public use, general aviation airport and located approximately five miles southeast of the project. There are not activities associated with the project that would result in any safety hazards to the ongoing operations of the airport. The project would also not expose future project residents to any safety impacts or noise impacts associated with the operation of John Wayne Airport. The project would not have any airport safety hazard impacts.
- f) ***Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan? Less Than Significant Impact.*** All of the proposed project improvements are located on private property. Ward Street and Slater Avenue, adjacent to the project, are used as emergency evacuation routes within Fountain Valley. The project would not significantly interfere with or impact the ability of Ward Street and Slater Avenue to continue to serve as emergency evacuation route for the City. The project would not significantly impact any emergency evacuation routes in the City.
- g) ***Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires? No Impact.*** There are no designated wildland fire areas in Fountain Valley. See section XX Wildfire for further wildland fire analysis. The project would not be exposed to or be impacted by a wildland fire.

X. HYDROLOGY AND WATER QUALITY: Would the project:

- a) ***Violate any water quality standards or waste discharge requirements? Less Than Significant Impact.*** A hydrology and hydraulics study was prepared and is included in Appendix D. A Preliminary Water Quality Management Plan¹⁸ was prepared for the project and is included in Appendix E.

During grading and project construction, silt could be generated from the site, especially if construction occurs during the winter months when rainfall typically occurs. The City would require the project contractor to prepare a Storm Water Pollution Prevention Plan (SWPPP) in accordance with California State Water Resources Control Board (State Water Board), Construction General Permit Order R8-2010-0062, National Pollutant Discharge Elimination System (NPDES) General Permit No. CAS618030

¹⁸ Preliminary Water Quality Management Plan, Coastal Community Fellowship Tract No. 18186, 10460 Slater Avenue, Fountain Valley, CA 92708, APN 169-141-04, DMS Consultants, Inc., September 4, 2018.

(Permit). The SWPPP would require the contractor to implement Best Available Technology Economically Achievable measures to reduce and eliminate storm water pollution from all construction activity through the implementation of Best Management Practices (BMPs).

The purpose of the SWPPP is to identify pollutant sources that may affect the quality of the storm water that would be discharged from the site during all construction activity. The SWPPP would require the contractor to identify, construct, and implement the storm water pollution prevention measures and BMPs that are necessary to reduce pollutants that are present in the storm water that is discharged from the site during construction. The SWPPP would include specific BMPs that must be installed and implemented prior to the start of construction. The installation and maintenance of all required BMPs by the contractor during construction would reduce potential water quality impacts to less than significant.

The project developer would be required to have a Water Quality Management Plan (WQMP) approved by the City prior to the start of grading. The project applicant has prepared a preliminary WQMP that identifies the Best Management Practices (BMPs) that would be used on-site to control the pollutants during the life of the project that are predictable by the project from entering the storm water runoff from the site. The types of pollutants that are anticipated to be generated during the life of the project include suspended solids/sediment, nutrients, heavy metals, pathogens, pesticides, oil and grease, toxic organic compounds and trash and debris. The State required WQMP identifies the measures that would be included in the project including use of a retention/detention basin, storm water clarifier, and catch basins with BMPs.

The preliminary WQMP states that on-site surface water flows for each residence would be directed to landscaped areas with BMP's for water percolation. Surface water from the individual residences that does not percolate would be directed to proposed new on-site roadway (Private Drive "B") that includes a 14' wide by 230' long Ecostone Permeable Paver strip area that extends from Lots 6/9 east to Lots 2/13 for water percolation. At the east end of the Ecostone Permeable Paver strip is a bottomless Trench Drain that would allow additional surface water percolation before any excess surface water is discharged to an existing storm drain in Ward Street adjacent to and east of the project site.

The project proposes to construct a new parking lot for the Coastal Community Fellowship church and church school to replace the existing parking lot that would be removed to allow the construction of the proposed residential units. The new parking lot is proposed for the west side of the church. The existing parking lot adjacent to and south of the church and church school would be changed to a driveway only and the existing parking spaces along the south side of the church and church school would be replaced in the new parking lot. In addition, a new driveway would be constructed at the northwest corner of the site to allow ingress/egress from the site to Slater Avenue. Ecostone Permeable Paver strips and Bottomless Trench Drains would be installed in the new parking lot and drive aisles to allow surface water runoff from the church and church school site to percolate into the soil. The same as the proposed residential project, any excess surface water runoff from the church and church school site that does not percolate into the soil would be discharged into the existing storm drain in Slater Avenue and Ward Avenue. The City must review and approve the WQMP for compliance with State law prior to the issuance of a building permit for the residential units.

The installation of and the regular maintenance of a required SWPPP and WQMP would reduce storm water runoff pollutants generated from the project site during both project construction and the life of the project to less than significant.

- b) **Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin. Less Than Significant Impact.** The project would be required by the city to use water for dust suppression during project grading and construction. The amount of water that would be required to control dust during grading and construction would be minimal and would not significantly impact existing groundwater supplies.

Lot 1 that includes the proposed parking lot associated with the church and the church school totals approximately 1.17 acres. Of the 1.17 acres, approximately 71% is pervious and 29% is impervious. Due to the construction of the parking lot in Lot 1, the 1.17 acres would be 18% pervious and 82% impervious. The proposed residential area of the site totals approximately 1.64 acres and currently the site is 51% pervious and 49% impervious. With the project, the 1.64 acres would be 50% pervious and 50% impervious. There would be an increase in the amount of surface water runoff from Lot 1 with the project and the area proposed for the residential units would see a minimal incremental increase in the amount of surface water runoff. For instance, for a 25-year storm event the project would increase the surface water runoff from 9.47 cubic feet per second (cfs) currently to 11.22 cfs, an increase of 1.75 cfs. For a 100-year storm event the increase would increase from 12.31 cfs currently to 14.51 cfs, an increase of 2.2 cfs. The proposed Ecostone Permeable Paver strips and Bottomless Trench Drain proposed for the project would allow surface water runoff to percolate into the soil and the local groundwater and minimize the amount of runoff discharged from the site to the local storm drain system. The City receives its water supply from local wells and has stated that it has adequate capacity to meet the water supply needs of the project, including potable water for drinking, landscape irrigation and fire flow. The project would not significantly deplete groundwater supplies or cause a drop in production rates of wells. The project would have a less than significant impact on groundwater supplies.

- c) **Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner, which would:**

- i. **Result in substantial erosion or siltation on or off site? Less Than Significant Impact.** The site is relatively flat and the elevations on the site range from 31.5 to 32.5 feet above mean sea level (msl).¹⁹ Runoff for the existing church and church school generally sheet flows to the north to Slater Avenue and runoff for the southern portion of the site generally sheet flows east to Ward Avenue. The existing drainage patterns on the site would generally be retained with the project. Runoff from Lot 1, which is the lot with the existing church and school, would be split with runoff from the proposed parking lot west of the church draining to the north to Slater Avenue and runoff in the drive aisle south of the church draining to the east to Ward Avenue. An Ecostone Permeable Paver strips and Bottomless Trench Drain is proposed at the end of each drive aisle within Lot 1 that would capture runoff from the parking lots and drive aisles and allow runoff to percolate into the soil. Any excess runoff would drain into both Slater Avenue and Ward Street. All overflow surface runoff from the proposed residential development that is directed to the Ecostone Permeable Paver strips and Bottomless Trench Drain and does not percolate into the soil would drain in a pipe to Ward Avenue. All low flow runoff would percolate into the on-site soil and no low flow runoff would be generated to Ward Street. As discussed above, the project, including the proposed residential development and the new church parking lot, would not generate more runoff than the current condition. Therefore, the project runoff would not alter the

¹⁹ Preliminary Water Quality Management Plan, Coastal Community Fellowship Tract No. 18186, 10460 Slater Avenue, Fountain Valley, CA 92708, APN 169-141-04, DMS Consultants, Inc., September 4, 2018, page 4.

course of any downstream streams or rivers or cause substantial erosion or siltation downstream of the site.

- ii. **Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off site? Less Than Significant Impact.** As discussed in section “X.b” above, the project would not significantly increase the amount of runoff generated from the site. Furthermore, the project proposes to construct an Ecostone Permeable Paver strips and Bottomless Trench Drains on the project site and two Ecostone Permeable Paver strips and Bottomless Trench Drains in the church parking lot to the north of the site to capture surface runoff flows and allow the flows to percolate into the soil. All low flow runoff would percolate into the on-site soil through the trench drain with no discharge to the local storm drain system. The excess runoff from a 25-year storm event of 1.75 cfs and 2.2 cfs for a 100-year event would discharge to the storm drain system in Ward Street through an underground storm drain. The storm drain system in Ward Street has existing capacity to handle the increase stormwater flows from the project without any flooding either on- or off the site. As a result, the project would not have any significant on- or off-site flooding impacts.
- iii. **Create or contribute runoff water, which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff? Less Than Significant Impact.** Based on hydrologic analysis, the storm water runoff by the project for a 25-year storm event would increase by 1.75 cfs compared to the existing condition and 2.2 cfs for a 100-year event. The project proposes to collect and direct all surface water flows to an Ecostone Permeable Paver strips and Bottomless Trench Drain that would be constructed at the east end of the private street adjacent to Ward Street within the residential development. Excess stormwater in the Bottomless Trench Drain that does percolate into the soil would be discharged by a storm drain into Ward Street. Similarly, Ecostone Permeable Paver strips and a Bottomless Trench Drain would be constructed within the existing drive aisle adjacent to Ward Street and the new drive aisle adjacent to Slater Avenue and allow surface water runoff from the church parking lots to percolate into the local soil. Any overflow runoff from the trench drains would be directed to and discharged into Ward Street and Slater Avenue by an underground storm drain. The existing storm drain system in both Slater Avenue and Ward Street have capacity to handle the increased runoff from the project without exceeding the existing capacity of those systems.

The project would be required to treat surface water runoff prior to its discharge to meet Regional Water Quality Control Board water quality requirements and provide safeguards that surface water runoff would not provide sources of polluted runoff. As discussed in section “X.a” above, a WQMP was prepared and states that the proposed Ecostone Permeable Paver strips and the installation of other on-site BMPs would remove and prevent most project generated pollutants from being discharge from the site into the existing off-site storm drain system in Slater Avenue and Ward Street. The installation and required routine maintenance of the three Ecostone Permeable Paver strips and Bottomless Trench Drains and underground stormdrain system in compliance with the WQMP would reduce and filter most project runoff pollutants. As a result, the project would not significantly impact surface water quality.

- iv. **Impede or redirect flood flows? Less Than Significant Impact.** Please see section “X.c.ii.” above.

- d) **In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation. No Impact.** The project is not in a 100-year flood hazard area. The site is located in flood zone X,

which is outside the 100-year flood plain of the Santa Ana River that is approximately 6,000' (1.12 miles) east of the project. The project is more than five miles from the Pacific Ocean and approximately 32 feet above mean sea level. The Fountain Valley General Plan does not identify any portion of the city at risk due to a tsunami. The project site and the area immediately surrounding the site are generally flat and there are no water bodies adjacent to or in close proximity to the site that would impact the project due to a seiche. Therefore, the project would not be exposed to a flood hazard due to a tsunami or seiche and release pollutants due to inundation by a flood hazard.

- e) ***Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. Less Than Significant Impact.*** The project developer has prepared a Preliminary WQMP and the project developer would be required by the City to install and implement all proposed water quality collection and surface water runoff treatment measures listed in the WQMP. As a result, the project would not conflict with or obstruct water quality control measures mandated by the state.

The City of Fountain Valley has an adopted Urban Water Management Plan (UWMP)²⁰. The UWMP provides a detailed summary of present and future water resources and demands and provides an assessment of the City of Fountain Valley's water resource needs. The UWMP provides water supply planning for a 25-year planning period in five-year increments and identifies water supplies needs to meet existing and future demands. The City gets its water from three main sources, recycled water from Orange County Water District's Green Acres Project, local well water from the Lower Santa Ana River Groundwater basin, and imported water from the Municipal Water District of Orange County.²¹

The UWMP analyzed the future water demand for the city based on land use type, including single-family, multi-family, commercial, institutional, industrial, etc. The UWMP also analyzed its future water supply based on the reliability of its existing sources of water including groundwater, MWD, recycling, etc. Based on the UWMP the available supply of water would meet the projected demand due to diversified supply and conservation measures. The project would continue to allow rainfall to percolate into the on-site soils and recharge the local groundwater. Therefore, the project would not significantly impact the UWMP and the City's future sources of water supply.

XI. LAND USE AND PLANNING: Would the project:

- a) ***Physically divide an established community? No Impact.*** The 4.07 acre site is an infill site and surrounded by single-family detached residential homes to the north, west, south and east. The project proposes to divide the 4.07 acre site into two separate parcels that include a parcel for the proposed residential development (1.64 acres) and a separate parcel for the existing church and private school (2.43 acres). A new parking lot would be constructed on the church property to replace the parking spaces lost due to the project. While the project would divide the 4.07 acre site into two parcels, the project would not physically divide the existing residential community adjacent to and surrounding the site.
- 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? Less Than Significant Impact.*** The project site is designated as Low Density Residential by the Fountain Valley General Plan and zoned R-1 (Low Density Residential). The project would require a General Plan Amendment to Low Medium Density Residential and a zone change to GH (Garden Homes) for the southerly portion of the site to allow the development of twelve garden homes as proposed.

²⁰ Fountain Valley 2015 Urban Water Management Plan, Final Draft, May 2016.

²¹ Ibid, page 1-4.

General Plan Consistency

Land Use Compliance

The project proposes 12 units on 1.63 acres with a density of 7.36 units per acre. Therefore, the project requires a General Plan Amendment from the current Low Density Residential land use that allows up to five dwelling units per net acre to Low Medium Density Residential that allows up to 10.8 dwelling units per net acre.

The Fountain Valley General Plan Land Use Element states that for Low Medium Density Residential “allows for the development of smaller lot single family residences, two-family dwellings, multi-family dwellings, and apartments. The maximum density within this land use category is up to 10.8 dwelling units per net unit acre”.

The applicable Goal and Policies of the General Plan Land Use Element that relate to residential development include:

Goal

2.1 Maintain and enhance high quality development throughout the City.

The applicable policy to obtain Goal 2.1 states:

Policy 2.1.2 Encourage variety, quality, consistency and innovation in land use practice.

The project meets the intent of Policy 2.1.2 of the Fountain Valley General Plan by proposing a residential project that is compatible with adjacent residential use and the Coastal church and private school adjacent to the site. The project proposes a distinctive architectural style and character creating a project identity for its residents who can take pride in the development.

Zoning Compliance

Density

The existing R-1 zone allows a maximum density of up to 5 dwelling units per acre. The project proposes 12 units on 1.63 acres with a density of 7.36 units/acre. Therefore, the project requires approval by the City of a zone change from R-1 to GH. The GH zone allows a density of up to 10.8 units/acre based on Table 2-3 of the Fountain Valley Municipal Code (FVMC).

The FVMC establishes the following development standards for a project in the GH zone.

GH development standards.

Lot Area: Minimum lot area = 1,800 square feet.

Lot width: 23 feet

Lot depth: As approved by the commission

Maximum number of dwelling units per parcel: 1 unit per parcel

Setbacks:

Front, As determined by the commission

Sides (each): As determined by the commission

Rear: As determined by the commission

Height Limit: 30 feet/2 stories

Ratio of 2nd story building area to 1st story building: As determined by the planning commission

Balconies and decks: As determined by the planning commission

Site coverage: 30% project building coverage. Maximum 11 units per structure

Floor area ratio: 0.5 + 0.10 (subject to Section 21.08.045)

Minimum floor area: As required by Table 2-4

Landscaping: As required by Section 21.20.040(B) (Landscape area requirements)

Parking: As required by Chapter 21.22 (Parking and Loading)

The project meets all of the GH zoning regulations and development standards. The project requires a Floor Area Ratio (FAR) bonus to increase the maximum FAR from 0.50 to 0.52 to comply with Fountain Valley Municipal Code 21.08.045. Therefore, the project would not have any significant land use impacts.

XII. MINERAL RESOURCES: Would the project:

- a) ***Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state? No Impact.*** The Fountain Valley General Plan does not identify any locally important minerals either on or adjacent to the site. Furthermore, there are no mining activities either on or adjacent to the project site. The project would not result in the loss of a locally important mineral resource or impact mineral resources.
- b) ***Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan? No Impact.*** See Response to section "XII.a" above.

XIII. NOISE: Would the project result in:

- a) ***Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance or applicable standards of other agencies? Less Than Significant Impact.*** A noise report²² was prepared for the project and is included in Appendix F. The project site is developed with the Coastal Church and private school, surface parking lot and open space. The noise that is generated from the site is associated with church services and the operation of the private school during the weekdays. Noise sources in the immediate project area impacting the project site includes traffic on Slater Avenue adjacent to and north of the site and Ward Street adjacent to and east of the site.

Noise Standards

The Noise Element of the City of Fountain Valley General Plan establishes noise quality standards for land use categories based on the State of California Office of Noise Control land use compatibility recommendations. Community noise exposures are recommended as normally acceptable, conditionally acceptable, normally unacceptable, and clearly unacceptable for various classes of land use sensitivity. As shown in Table 10, the City guidelines an exterior noise exposure standard of 60 dB

²² Noise Impact Analysis, Villa Serena Project, Giroux & Associates, December 18, 2018.

CNEL is the most desirable level for single-family residential uses while levels of 70 dB CNEL are acceptable for usable outdoor space (patios, decks, pools, etc.). A level of 70 dB CNEL is considered “conditionally acceptable”. In a “conditionally acceptable” noise category, new construction should be undertaken only after a noise analysis has been made and needed noise insulation features have been incorporated in the project design. These standards apply to exterior recreational noise.

Table 10
Fountain Valley Noise Ordinance Standards
Fountain Valley Municipal Code Section 6.28.050

Noise Zone 1	Time Period	Exterior Noise Standard
All properties located in residential zone districts	7 a.m.- 10 p.m.	55 dB
	10 p.m.-7 a.m.	50 dB

It is unlawful for any person at any location within the city to create any noise, or to allow the creation of any noise on property owned, leased, occupied or otherwise controlled by such person, when the foregoing causes the noise level, when measured on any other residential property, either incorporated or unincorporated, to exceed:

- 1) The noise standard for a cumulative period of more than thirty (30) minutes in any hour; or
- 2) The noise standard plus five (5) dB(A) for a cumulative period of more than fifteen (15) minutes in any hour; or
- 3) The noise standard plus ten (10) dB(A) for a cumulative period of more than five (5) minutes in any hour; or
- 4) The noise standard plus fifteen (15) dB(A) for a cumulative period of more than one (1) minute in any hour; or
- 5) The noise standard plus twenty (20) dB(A) for any period of time.

An interior CNEL of 45 dB is mandated by the State of California Noise Insulation Standards (CCR, Title 24, Part 6, section T25-28) for multiple-family dwellings and hotel and motel rooms. In 1988, the State Building Standards Commission expanded that standard to include all habitable rooms in residential use, including single-family dwelling units. For this project an exterior noise level of 70 dB CNEL in any usable outdoor recreational area and interior noise level of 45 dB in any habitable residential indoor space are considered to be the appropriate compatibility standards for residential use.

Baseline Noise Levels

Baseline noise measurements were taken to document the existing noise levels on the site due to activities on the site and the immediate project vicinity. The existing noise levels are shown in Table 11. The measured noise levels provide a basis to calculate the noise levels that project residents would be exposed to with the existing noise generating activities in the area. Short term (15-minute) noise measurements were conducted early afternoon on Thursday, December 13, 2018 at three on-site locations as shown in Figure 11.

**Table 11
Measured Noise Levels (dBA)**

Meter	Leq	Lmax	Lmin	L10	L33	L50	L90
1	63	70	46	67	63	60	52
2	62	73	40	66	62	56	45
3	48	58	40	52	48	46	42

Meter 1 was located south of the Church and School in the drive aisle accessed from Ward Street. Meter 2 was placed to the south, also along Ward Street. Meter 3 was placed interior to the site along the western project boundary, away from the adjacent roadways.

Monitoring experience shows that 24-hour weighted CNELs can be reasonably well estimated from mid-day noise readings. CNELs are approximately equal to mid-afternoon hour Leq plus 2-3 dB (Caltrans Technical Noise Supplement, 2009). This would translate into CNELs along Ward Street of 64-66 dBA and 50- 51 dBA CNEL interior to the site.

**Figure 11
Noise Monitor Locations**



Because the proposed homes would be exposed to operational noise from Sunday activities at the Coastal church noise measurements were repeated on Sunday morning, January 6, 2019. The location of the noise measurements is shown in Figure 11. The results of the noise measurements on January 6, 2019 are shown in Table 12.

Table 12
Coastal Church Noise Measurements – January 6, 2019

Time	LEQ	Lmax	Lmin	L10	L33	L50	L90
8:30	60.0	81.0	38.0	64.0	59.5	55.5	47.0
9:00	56.5	67.5	42.5	61.5	56.0	51.0	45.0
9:30	57.5	68.5	43.0	62.0	58.0	54.0	45.5
10:00	58.0	74.0	44.5	61.5	58.0	54.5	46.0
10:30	56.0	72.5	44.5	60.0	56.0	52.5	46.5
11:00	57.5	72.5	43.5	59.0	57.0	52.5	46.5
11:30	56.0	71.0	43.5	59.5	56.0	53.5	46.5
12:00	58.5	80.0	48.5	60.5	57.5	56.0	53.0
12:30	56.5	79.0	47.0	61.5	58.0	56.5	53.5

The Sunday morning noise monitoring was for a 4.5 hour duration with results summarized for each half hour. As shown, there is very little fluctuation in the noise levels during these measured time period. Therefore, based on the noise measurements it is assumed that background traffic from Ward Street, Slater Avenue and other area roadways dominate the noise environment during this time and noise associated with Sunday church activities is minor.

According to the project traffic analysis, there are 218 Sunday morning vehicular peak hour trips either entering or leaving the church site via the current Ward Street entrance. The project proposes a second driveway at Slater Avenue for ingress and egress to the church. The traffic analysis estimates that once the project is completed there would be 135 peak hour vehicle trips at the Ward Street driveway and 83 peak hour vehicle trips at the Slater Avenue driveway. Therefore, the noise measured noise levels in Table 12 above would be slightly less with the project because church traffic would be divided between the two driveways rather than the existing single driveway at Ward Street as currently exist. In addition, the project proposes to construct a 6-foot block wall along the church property with the proposed residential units. The proposed 6-foot block wall would attenuate and reduce noise from the church on Sunday to a level that project residents are not anticipated to hear much of noise from the church on Sunday.

Noise impacts are considered significant if they result in:

- a. Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.
- b. Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels.
- c. A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project.
- d. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.

"Substantially" is not defined in any noise guidelines. The accuracy of sound level meters and of sound propagation computer models is no better than ± 1 dB. This is also the human loudness difference discrimination level under ideal laboratory conditions. Most people cannot distinguish a change in the noise environment that differs by less than 3 dB between the pre- and post-project exposure if the change occurs under ambient conditions. For the purposes of this analysis, a traffic noise increase of more than +3 dB that worsens an area of noise/land use incompatibility would be considered a significant noise impact.

Sensitive Receptors

The closest noise sensitive receptors to the project are the residents adjacent to and west of the site. There is an existing 6-foot block wall along the west property line and the existing residences are approximately 30 feet from closest proposed project residences. There are also existing residences south of the site along the southern project boundary. There is an existing 6-foot block wall along the southern property line and the existing residences have a minimal 50-foot setback from the closest project residence. The homes east of the site, east of Ward Avenue are approximately 100 feet from the closest project residence. The church and associated school are approximately 60-feet north of the project boundary. A proposed 6-foot block wall is proposed along the north project boundary between the proposed residential units and the church and school.

Temporary Noise Impacts

The existing noise levels on the site and the noise levels in the immediate vicinity of the site would increase temporarily during project construction. Short-term construction noise would be generated during grading and the construction of the residential units and other proposed site improvements. Noise would also be generated by construction workers commuting to the site, the delivery of materials and supplies to the site and the operation of on-site electrical construction equipment, etc.

Temporary construction noise impacts vary markedly due to the noise level range of the various types of construction equipment, its activity level and the distance from the equipment to the closest noise sensitive land use. Short-term construction noise impacts typically occur in discrete phases dominated by large, earth-moving equipment that is used during for demolition and grading operations to construction and paving equipment that generates less noise.

In 2006, the Federal Highway Administration (FHWA) published the Roadway Construction Noise Model that includes a national database of construction equipment reference noise emissions levels. In addition, the database provides an acoustical usage factor to estimate the fraction of time each piece of construction equipment is operating at full power during a construction phase. The usage factor is a key input variable that is used to calculate the average Leq (Equivalent Continuous Sound Pressure Level) noise levels.

Table 13 identifies the highest (Lmax) noise levels that is typically associated with each type of construction equipment that would be used by the project and then adjusts the noise level for distance to the closest sensitive receptor to the project and the extent of the use of the equipment (usage factor), which is represented as Leq. The table is organized by construction activity and lists the equipment that is associated with each activity. Table 16 also shows the noise level for each individual piece of equipment at a reference 50-foot distance.

**Table 13
Construction Equipment Noise Levels**

Phase Name and Duration	Equipment	Usage Factor¹	Noise @ 50 feet (dB)²	Hourly Noise Level @ 50 feet (dB)
Demolition	Concrete Saw	20%	90	83
	Dozer	40%	85	82
	Loader/Backhoe	37%	78	74

Grading	Grader	40%	85	81
	Dozer	40%	85	82
	Loader/Backhoe	37%	78	74
Construction	Crane	16%	81	73
	Loader/Backhoe	37%	78	74
	Welders	46%	74	71
	Generator Set	50%	81	78
	Forklift	20%	75	69
Paving	Paver	50%	77	74
	Mixer	40%	79	75
	Paving Equipment	40%	76	72
	Loader/Backhoe	37%	78	74
	Roller	20%	80	74

Source: FHWA's Roadway Construction Noise Model, 2006

The closest noise sensitive land use to the project site are the residences that are adjacent to and west and south of the site. There is an existing 6-foot block wall along both the southern and western project boundary that separate the residences from the project site. There are residences east of the site that are separated from the project by Ward Street.

Exterior noise levels were calculated to residences closest to the site with the operation of on-site construction equipment. The existing block walls along the southern and western boundary would reduce noise levels to the residences beyond the wall by approximately 5 dBA. The exterior noise levels to the residences closest to the project, after taking the 5 dBA credit, are shown in Table 14.

Table 14
Construction Noise Equipment Levels at Off-Site Noise Sensitive Uses (dBA Leq)

Phase Name and Duration	Equipment	Noise @ Western Perimeter Homes	Noise @ Southern Perimeter Homes	Noise @ Eastern Perimeter Homes
Demolition	Concrete Saw	82	78	77
	Dozer	81	77	76
	Loader/Backhoe	73	69	68
Grading	Grader	80	76	75
	Dozer	81	77	76
	Loader/Backhoe	73	69	68
Construction	Crane	72	68	67
	Loader/Backhoe	73	69	68
	Welders	70	66	65
	Generator Set	77	73	72
	Forklift	68	64	63
Paving	Paver	73	69	68
	Mixer	74	70	69
	Paving Equipment	71	67	66
	Loader/Backhoe	73	69	68
	Roller	73	69	68

The interior noise levels of the residences closest to the project would be approximately 25-30 dBA lower than the exterior noise levels shown in Table 14, assuming all windows facing the site are closed. As a result, the residences west of the site would have an interior noise level of approximately 52-57 dBA, residences to the south would have an interior noise level of approximately 48-53 dBA and residences to the east would have an interior noise level of approximately 47-51 dBA based on standard residential construction materials that provides 20 dB of exterior to interior noise level reduction.

For indoor noise environments, the highest noise level that permits relaxed conversation with 100 percent intelligibility throughout the room is 45 dBA. Speech interference is considered to be highly intrusive when normal conversation is precluded at 3 feet, which occurs when ambient noise levels substantially exceed 60 dBA. An interior noise level of 52-57 dBA at indoor locations would maintain a barely acceptable interior noise environment with closed dual paned windows. In some cases, this noise reduction could be maintained only on a temporary basis, since it requires that windows remain closed at all times assuming homes have air conditioning.

The potential for construction-related noise to adversely affect nearby residential receptors would depend on the location and proximity of construction activities to these receptors. Most construction equipment would be operated at a greater distance from the adjacent residences than the worst-case examples shown in Table 14. Therefore, the exterior and interior noise levels would be less than shown in Table 14.

The FVMC, Section 6.28.080 Schools, hospitals and churches – Special provisions states that, “It is unlawful for any person to create any noise which causes the noise level at any school, hospital or church while the same is in use to exceed the noise limits as specified in Section 6.28.050 prescribed for the assigned noise zone in which the school, which the school, hospital or church is located, or which noise level unreasonably interferes with the use of such institutions or which unreasonably disturbs or annoys patients in the hospital, provided conspicuous signs are displayed in three separate locations within one-tenth of a mile of the institution indicating the presence of a school, church or hospital. (Ord. 806 § 2, 1976).”

Although construction noise levels at the residences south of the site would exceed the Fountain Valley Noise Ordinance, the Noise Ordinance excludes construction noise level restrictions during the hours of 7:00 a.m. and 8:00 p.m. Monday through Friday and 9:00 a.m. and 8:00 p.m. on Saturdays. The Noise Ordinance prohibits construction on Sunday or legal holidays. The project proposes to restrict the hours of construction to those hours allowed by the Noise Ordinance, which would prevent construction on Sunday and not impact the adjacent church.

The project would not have a significant or adverse construction noise impact to any noise sensitive land use in the vicinity of the project, including the residents to the south, west and east with compliance to the Noise Ordinance.

Vehicular Noise Impacts

Long-term noise impacts to project residents due to motor vehicle traffic on Ward Street and Slater Avenue adjacent to the site was studied. The California specific vehicle noise curves (CALVENO) in the federal roadway noise model (the FHWA Highway Traffic Noise Prediction Model, FHWA-RD-77-108) was used to determine if traffic on Ward Street or Slater Avenue would impact project residents. The traffic noise model calculates the Leq noise level for a reference set of input conditions, and then makes a series of adjustments for site-specific traffic volumes, distances, speeds, or noise barriers.

Table 15 summarizes the 24-hour CNEL level at 50 feet from the roadway centerline along the closest area roadway segments based on traffic data from the project traffic report.²³ As shown in Table 15, the project in both the existing and opening year (2020) conditions does little to change the overall traffic noise environment. Because the area in the immediate project vicinity is mostly built out the addition of project traffic to the area roadways does not significantly increase the traffic noise environment of the area. As documented in the traffic report, the project area would not experience a significant increase in the existing traffic volumes of the area. As a result, the largest project generated traffic noise increase is +0.1 dBA CNEL on Slater Avenue east of Los Jardines and on Ward Street between Warner Avenue on the north and Talbert Avenue on the south. This noise level increase of +0.1 dBA CNEL is less than the +3 dBA significance noise threshold. Therefore, the noise level increase by the project on Slater Avenue and Ward Street is less than significant.

Table 15
Traffic Noise Impact Analysis
(dBA CNEL at 50 feet from centerline)

Segment		Existing No Project	Existing With Project	2019 No Project	2019 With Project
Slater Ave./	Los Alamos-Ward	66.9	66.9	66.9	67.0
	E. of Los Jardines	67.0	67.0	67.1	67.1
Ward St./	Warner-Slater	65.2	65.3	65.3	65.3
	Slater-Talbert	66.8	66.8	66.9	66.9

As shown in Table 15 the traffic noise level along Ward Street adjacent to the project site, including project traffic, is almost 67 dBA CNEL at 50 feet from the roadway centerline. The closest project residence is approximately 10 feet within the property line. There is a 6-foot block wall and a 2-foot block wall with a 3-foot metal handrail on top proposed to be constructed along the east project line adjacent to Ward Street. The proposed 6-foot block wall would reduce the estimated 67 dBA CNEL outdoor noise level at the residential units closest to Ward Street to less than 65 dBA CNEL, below the 70 dBA CNEL compatibility threshold. The traffic noise on Ward Street adjacent to the site would not significantly impact the exterior noise levels of the project residents.

Based on the noise analysis above, the project would not have any significant temporary (construction) or permanent (operational) noise level impacts.

- b) **Generation of excessive ground borne vibration or ground borne noise levels? Less Than Significant Impact.** There are residential homes south, west, north and east of the project. The site is subject to occasional ground borne vibration due to heavy trucks occasionally traveling on Slater Avenue and Ward Street adjacent to and north and east of the site, respectively. The vibration levels on the site from heavy trucks on the adjacent streets are not significant and short-term in duration.

Construction Activity Vibration

Construction activities generate ground-borne vibration when heavy equipment travels over unpaved surfaces or when it is engaged in soil movement, such as grading. The effects of ground-borne

²³ Traffic report is included in Appendix G.

vibration include discernable movement of building floors, rattling of windows, shaking of items on shelves or hanging on walls, and rumbling sounds. Vibration related problems generally occur due to resonances in the structural components of a building because structures amplify groundborne vibration. Within the “soft” sedimentary surfaces of much of Southern California, ground vibration is quickly damped. Groundborne vibration is almost never annoying to people who are outdoors (FTA 2006).

Groundborne vibrations from construction activities rarely reach levels that can damage structures. Vibration thresholds have been adopted for major public works construction projects, but these relate mostly to structural protection (cracking foundations or stucco) rather than for human annoyance.

A vibration descriptor commonly used to determine structural damage is the peak particle velocity (ppv) and defined as the maximum instantaneous positive or negative peak of the vibration signal, usually measured in in/sec. The range of vibration levels is shown in Table 16.

**Table 16
Human Response to Transient Vibration**

Average Human Response	ppv (in/sec)
Severe	2.00
Strongly perceptible	0.90
Distinctly perceptible	0.24
Barely perceptible	0.03

Source: Caltrans Transportation and Construction Vibration Guidance Manual, 2013.

Over the years, numerous vibration criteria and standards have been suggested by researchers, organizations, and governmental agencies. However, there are no California Department of Transportation (Caltrans) or Federal Highway Administration standards for vibration.

According to Caltrans, the threshold for structural vibration damage for modern structures is 0.5 in/sec for intermittent sources, which include impact pile drivers, pogo-stick compactors, crack-and-seat equipment, vibratory pile drivers and vibratory compaction equipment. The American Association of State Highway and Transportation Officials (AASHTO) (1990) identifies maximum vibration levels for preventing damage to structures from intermittent construction or maintenance activities for residential buildings in good repair with gypsum board walls to be 0.4–0.5 in/sec. The damage threshold criterion of 0.2 in/sec is appropriate for fragile buildings. For the purpose of this analysis because some of the area residential units adjacent to the site can be older the 0.2 in/sec damage threshold for older fragile buildings is used as the evaluation criteria. Below this level of 0.2 in./sec. there is virtually no risk of building damage. Table 17 below shows the predicted vibration levels at varying distances that are typically generated by various types of construction equipment.

**Table 17
Estimated Vibration Levels During Project Construction**

Equipment	PPV at 25 ft (in/sec)	PPV at 40 ft (in/sec)	PPV at 50 ft (in/sec)	PPV at 100 ft (in/sec)	PPV at 150 ft (in/sec)
Large Bulldozer	0.089	0.044	0.031	0.011	0.006
Loaded trucks	0.076	0.038	0.027	0.010	0.005

Jackhammer	0.035	0.017	0.012	0.004	0.002
Small Bulldozer	0.003	0.001	0.001	<0.001	<0.001

Source: FHWA Transit Noise and Vibration Impact Assessment

The closest homes to the project site where grading would occur is approximately 30-feet to the west and south. As shown in Table 17 at 25-foot vibration levels are below levels that could create structural damage in fragile buildings (i.e., 0.2 in/sec). The operation of jackhammers on the site that are a typical source of construction vibration would generate vibration levels below the threshold for cosmetic damage to the closest residences to the site. Based on the types of construction equipment that would be used on the site and the estimated vibration levels to the closest residences to the site from the operation of the construction equipment the project would generate vibration levels less than the recommended acceptability threshold of 0.2 inches per second.

The project would not have any significant ground borne or vibration impacts and vibration impacts would be less than significant.

- c) ***For a project located within the vicinity of a private air strip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport, would the project expose people residing or working in the project area to excessive noise levels? No Impact.*** There are no private air strips or public airports in the City of Fountain Valley or the immediate project vicinity. John Wayne Airport is the closest public airport to the site and is located approximately five miles southeast of the project. The project site is not located within the land use plan of John Wayne Airport. Because the project is more than five miles from John Wayne Airport and outside of the airport plan for John Wayne Airport, the project would not be impacted by noise levels at John Wayne Airport.

XIV. POPULATION AND HOUSING: Would the project:

- 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)? Less Than Significant Impact.*** The project proposes 12 market rate for-sale garden homes. Currently there is an average of 3.03 persons per household in Fountain Valley.²⁴ Assuming the average persons per unit for the project is the same as the average household in Fountain Valley, the project is estimated to generate approximately 37 residents, which represents less than 0.5% increase of the City's current population of 56,313²⁵. This population increase assumes that all of the project residents live outside the city and would relocate to Fountain Valley. This percentage could be less when taking into account any existing city residents that would move to the project, once developed and their vacated units are occupied by city residents. If the vacated units are not reoccupied by city residents the city's population would increase accordingly. While the city's population is expected to increase due to the project, the increase would not significantly increase the population of Fountain Valley.

California State Housing Element Law enacted in 1980 requires the Southern California Association of Governments (SCAG) and other regional councils of government in California to determine the existing and projected regional housing needs for persons at all income levels. SCAG is also required by law to determine each jurisdiction's share of the regional housing need in the six-county (Imperial, Los Angeles, Orange, Riverside, San Bernardino and Ventura) Southern California region. State legislation and the Regional Housing Needs Assessment (RHNA) process are intended to address housing needs

²⁴ U.S. Census Bureau, persons per household, 2013-2017.

²⁵ U.S. Census Bureau, population estimate, July 1, 2017.

for projected state population and household growth, to create a better balance of jobs and housing in communities, and to ensure the availability of decent affordable housing for all income groups.

As the regional Council of Governments (COG) for Southern California, State law requires SCAG to “determine the existing and projected housing need for its region”. SCAG takes the lead in overseeing the assessment by identifying measures to gauge housing demand and comparing those numbers against socioeconomic factors throughout the region.

The RHNA consists of two measurements: 1) existing need for housing, and 2) future need for housing. The existing need assessment examines key variables from census data, to measure ways in which the housing market is not meeting the needs of current residents. The future need assessment is determined by SCAG’s growth forecast and public participation process.

The State’s Housing Element law requires local governments to make plans to adequately address their share of existing and projected population growth, taking into consideration affordability of available and future housing. Recognizing that the most critical decisions regarding housing development, occur at the local level, through a City’s General Plan, the Housing law seeks to adequately address housing needs and demands. The California Department of Housing and Community Development (HCD) enforces State Housing Element Law by requiring certified Housing Elements as part of every city’s General Plan.

In the City’s Housing Element, the RHNA for 2014-2021 for Fountain Valley totals 358 units, which includes Extremely Low, Very Low, Low, Moderate and Above Moderate affordability levels. Of these housing income groups, the RHNA allocation for Above Moderate income group is 151 units. The City is required to ensure that the General Plan and Zoning Ordinance provide for the development of the 151 residential units that are needed in Fountain Valley by 2021. The project’s 12 garden homes would contribute toward the City’s 2014-2021 RHNA housing need of 151 Above Moderate residential units.

Fountain Valley Housing Element

The Fountain Valley Housing Element provides policy themes, goals and policies to achieve the city’s desired policy themes. The policy themes, goals and policies of the Housing Element that are applicable to the project are provided below:

Policy Theme: Housing Production

Goal #2: Promote and encourage the development of a variety of housing opportunities suitable to the needs of and sufficient in number to accommodate current and projected households.

Policy 2.a: Promote the construction of additional dwelling units to accommodate Fountain Valley’s share of regional housing needs in accordance with adopted land use policies.

Policy 2.b: Promote infill housing development on vacant land within existing neighborhoods and recycling of underutilized non-residential parcels.

Policy 2.c: Promote and encourage the use of innovative construction methods, design standards, lot configurations and energy conservation techniques which would facilitate the production of quality, affordable and attractive new housing which varies in type, design, form of ownership and size and is compatible with abutting development.

Policy 2.d: Encourage new housing construction for home ownership in a mixture of price ranges.

Policy Theme: Equal Opportunity Housing

Goal #4: To promote housing opportunities for all persons regardless of race, age, religion, sex, marital status, ancestry, national origin or color.

Policy 4.a: Promote fair housing practices throughout the City.

The proposed 12 unit residential project meets Goal #2 by providing for the development of new medium density garden homes in a variety of floor plans on an infill property in the City. The vacant 1.63 acre parcel is designated by the General Plan for residential development and is currently underutilized. The development of the site with 12 garden homes at a density of 7.36 dwelling units/acre provides a new housing type that is compatible with the existing single-family detached residences adjacent to and west, south and east of the site and the apartments north of the site, north of Slater Avenue. The 12 residential units would assist the city towards meeting its RHNA allocation of 151 Above Moderate income residential units. There are adequate public facilities and services available to serve the residents without any significant impacts. The project also meets Goal #4 by providing a residential project with housing for all persons, regardless of race, age, religion, sex, marital status, ancestry, national origin or color for Fountain Valley residents. The project would comply with all Federal and State equal opportunity housing mandates.

It is anticipated that many of the project buyers would be existing residents of Fountain Valley. Therefore, the project is not anticipated to substantially increase the City's population.

- b) ***Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere? No Impact.*** There are no existing residential units on the project site. Therefore, the project would not displace any existing housing and require the construction of replacement housing.

XV. PUBLIC SERVICES:

- a) ***Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:***
- i. ***Fire protection? Less Than Significant Impact.*** The Fountain Valley Fire Department provides fire protection services to the site. The closest fire station to the site is Fire Station 1 and located at 17737 Bushard Street. This fire station is approximately 1.3 miles west of the site. The other responding fire station is Fire Station 2 that is located at 16767 Newhope Street and approximately 1.7 miles northeast of the site. Both fire stations have an estimated emergency response time of 5 minutes or less. Once constructed, the project would require fire protection services that are typically required for residential development. While the project would require fire protection services during both construction and the life of the project, the Fountain Valley Fire Department has stated that it has sufficient personnel and equipment to serve the project without any significant impact to the fire department's ability to continue to provide an adequate level of fire protection service to Fountain Valley.²⁶ The impact by the project to fire protection services would be less than significant.

²⁶ .Fire Marshall Michelle Rudaitis, Fountain Valley Fire Department, telephone conversation January 14, 2019.

- ii. **Police protection? Less Than Significant Impact.** The Fountain Valley Police Department provides police protection services to the site from the police department located at 10200 Slater Avenue, which is approximately one quarter mile west of the site. The project could require police protection services during project construction to respond to theft, vandalism, accidents and other construction related police emergencies. Once constructed, the project would require typical operational police services such as routine police patrols, vandalism, break-ins, and other service calls associated with residential development. While the project would require police protection services during project construction and the life of the project, the project would not impact the Police Department's ability to continue to provide an adequate level of service to the community.²⁷
- iii. **Schools? Less Than Significant Impact.** The project is served by the Fountain Valley School District and the Huntington Beach Union High School District. Students grades K-8 that are generated by the project would attend Cox Elementary School and Masuda Middle School. Student's grades 9-12 would attend Fountain Valley High School. The project is estimated to generate approximately 7 students, including 4 elementary, 2 intermediate and 1 high school student.²⁸ The schools that would serve the project currently have the capacity to accommodate the additional students without impacting the schools. As required by Government Code Section 65995, the project would pay the required developer fee towards the cost to offset impacts from the students that would be generated by the project. Currently the developer fee for residential units in the Fountain Valley School District is \$1.95 per square foot and \$1.48 for the Huntington Beach Union High School District for a total of \$3.43 a square foot. The project developer would be required to pay the fee in place at the time the developer acquires building permits for the construction of the proposed residential units. Payment of the required developer fee would reduce the impact of the project to both the Fountain Valley School District and the Huntington Beach Union High School District to less than significant.
- iv. **Parks? Less Than Significant Impact.** The closest public park to the project is Colony Park that is located at 10252 Cinco de Juarez and approximately one-half mile northwest of the site. This is a 0.68 acre park and includes a climbing unit, picnic tables, basketball court and restrooms. Because the project does not propose any on-site recreational facilities, project residents would incrementally increase the demand and use of existing park and recreational facilities in Fountain Valley, including Colony Park. Mile Square Regional Park, which is an Orange County regional park, is located at 16801 Euclid Street and approximately one-half mile north of the project. Mile Square Park includes soccer, basketball, baseball, softball, cross country track meets, fishing and archery, golf and other active and passive recreational facilities. Due to the small scale of the project it is anticipated the increased demand for both city and county park and recreational facilities would not have a significant impact to the existing park and recreational facilities in Fountain Valley.

Based on the City's park requirement formula the project would be required to pay a parkland fee of approximately \$89,000. The developer's park fee would be used by Fountain Valley to provide new or upgrade existing park and recreational facilities throughout the city. The payment of the required parkland fee would reduce the park and recreational impact of the project to less than significant. The project would not have a significant impact on park and recreational facilities in Fountain Valley with payment of the required park fee. The residents of the project are not anticipated to increase the use of city parks and significantly impact parks in Fountain Valley.

²⁷ Captain Matt Sheppard, Fountain Valley Police Department, email January 3, 2019.

²⁸ Fountain Valley School District student generation rate: 0.33 students/unit for grades K-5; 0.09 students/unit for grades 6-8 and Huntington Beach Union High School District student generation rate is 0.02 students for grades 9-12.

- v. **Other public facilities? No Impact.** There are no public facilities or services that would be impacted by the project.

XVI. RECREATION

- a) **Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated? Less Than Significant Impact.** The project would not significantly impact recreation facilities. Please see Public Services section “XV.a.iv” above.
- b) **Does the project include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment? Less Than Significant Impact.** As discussed in Public Services section “XV.a.iv” above, the project does not propose the construction of any on-site recreational facilities and would not require the construction or the expansion of other recreational facilities that would impact the environment.

XVII. TRANSPORTATION: Would the project:

- a) **Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities? Less Than Significant Impact.** A traffic report²⁹ was prepared for the project and is included in Appendix G.

The project is estimated to generate approximately 148 vehicle trips a day, including 13 AM and 13 PM trips as shown in Table 18.

**Table 18
Project Trip Generation Summary**

				AM Peak Hour Volume			PM Peak Hour Volume		
Land Use	Unit	Quantity	ADT	Total	In	Out	Total	In	Out
Residential	DU	12	148	13	3	10	35	8	5

The following signalized intersections were included in the study area for analysis:

1. Ward Avenue at Ward Street;
2. Slater Avenue at Los Alamos Street;
3. Slater Avenue at Water Street;
4. Slater Avenue at Los Jardines; and
5. Talbert Avenue at Ward Street.

Current traffic counts were taken at the five intersections to determine the existing level of service (LOS) of each intersection. Traffic counts were taken for both the morning (AM) and evening (PM) peak hours. As shown in Table 19, all five intersections currently operate at LOS A, LOS B and LOS C, which are considered acceptable by the City.

²⁹ Villa Serena 12-Unit Residential Community Traffic Impact Analysis, Stantec, January 11, 2019.

Table 19
Existing (2018) Level of Service at Study Area Intersections

Signalized Intersections	AM Peak Hour		PM Peak Hour	
	ICU	LOS	ICU	LOS
1. Warner Ave / Ward St	0.68	B	0.79	C
2. Slater Ave / Los Alamos St	0.34	A	0.53	A
3. Slater Ave / Ward St	0.57	A	0.69	B
4. Slater Ave / Los Jardines	0.54	A	0.59	A
5. Talbert Ave / Ward St	0.68	B	0.80	C

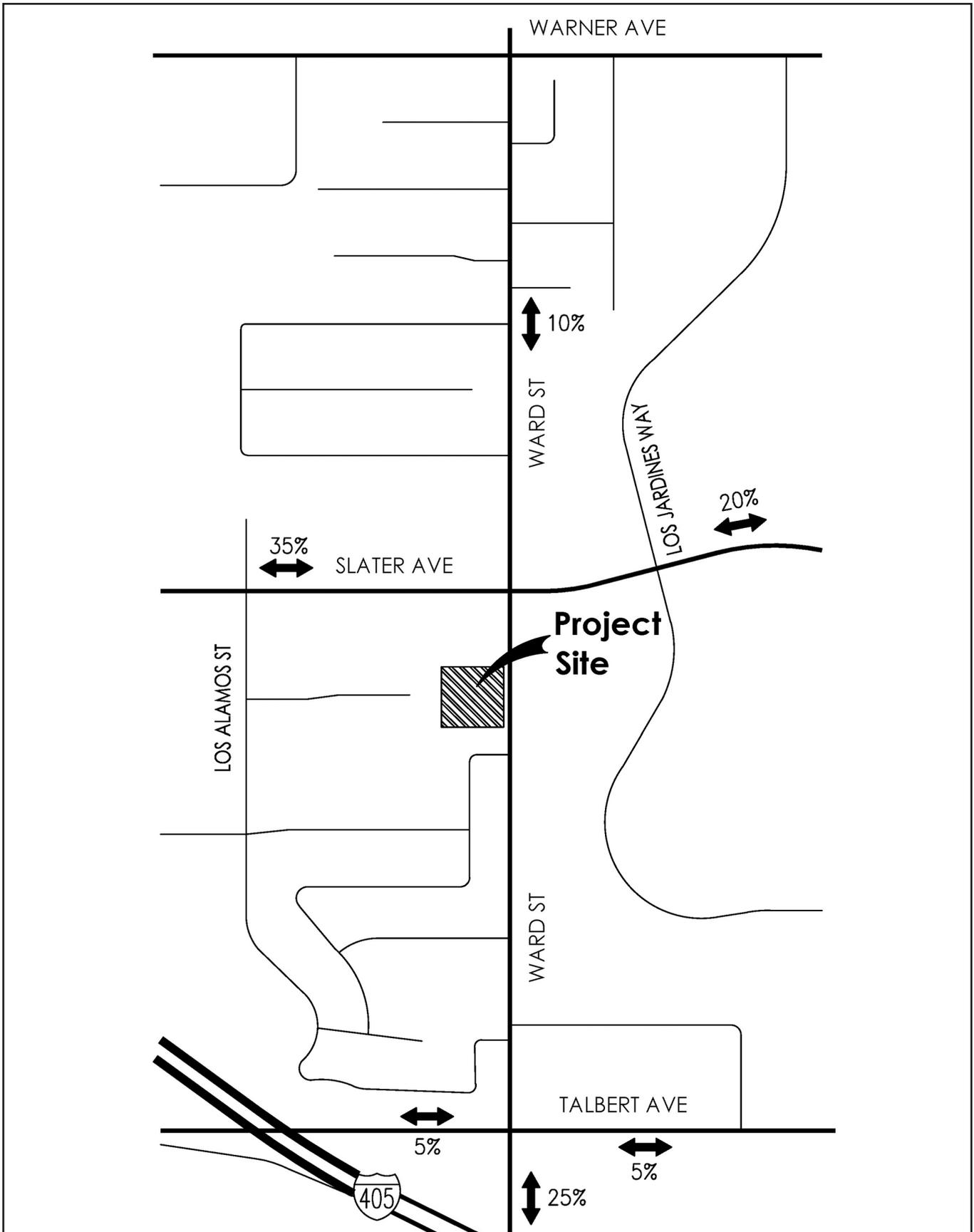
The distribution and assignment of traffic trips generated by the project were assigned to the area transportation system is shown in Figure 12. As shown, approximately 35% of project traffic is assigned to/from Slater Avenue west of Ward Street, 20% to/from Slater Avenue east of Ward Street, 10% north of the project site on Ward Street, 25% of project traffic to the south on Ward Street south of Talbert Avenue, 5% on Talbert Avenue west of Ward Street and 5% on Talbert Avenue east of Ward Street.

The five intersections were studied to determine their level of service in 2020 when the project is scheduled to be completed. As shown in Table 20, all five studied intersections would continue to operate at LOS D or better, which is an acceptable level of service based on city standards.

Table 20
Baseline (2020) with Project Level of Service at Study Area Intersections

Signalized Intersections	Existing 2018				Baseline 2020			
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
	ICU	LOS	ICU	LOS	ICU	LOS	ICU	LOS
1. Warner Ave / Ward St	0.68	B	0.79	C	0.69	B	0.81	D
2. Slater Ave / Los Alamos St	0.34	A	0.53	A	0.34	A	0.53	A
3. Slater Ave / Ward St	0.57	A	0.69	B	0.59	A	0.72	C
4. Slater Ave / Los Jardines	0.54	A	0.59	A	0.57	A	0.60	A
5. Talbert Ave / Ward St	0.68	B	0.80	C	0.75	C	0.84	D

The project traffic would not impact the existing traffic volumes and levels of service of any area roadways or intersections.



Source: Stantec



Figure 12
Trip Distribution

The existing traffic circulation system can accommodate the project traffic without exceeding the City's adopted Level of Service (LOS) D at any local intersections. There are no Orange County Congestion Management Program (CMP) roadways within the project vicinity. Therefore, the project would not impact any city policies regarding transportation or impact any CMP roadways or cause roadway congestion. The project would not have any significant transportation impacts.

- b) **Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)? No Impact.** CEQA Guidelines section 15064.3, subdivision (b) addresses project vehicle miles traveled (VMT). Per this section, all traffic studies must calculate the VMT of a project rather than the current standard level of service (LOS) no later than July 1, 2020. Therefore, lead agencies have the option to prepare traffic studies based on VMT or LOS. In this case, the traffic study was prepared using the LOS analysis. Therefore, the project would not be in conflict or inconsistent with CEQA Guidelines section 15064.3, subdivision (b).
- c) **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.** Currently there are two driveways that serve the site. The two driveways are at the east side of the project site, the west side of Ward Street south of Slater Avenue and provide ingress/egress to the church and the adjacent school.

The project would construct a new drive aisle to the site at Ward Avenue to serve the project residents. The project also proposes to reconstruct the existing church parking lot and construct a new driveway at Slater Avenue near the northwest corner of the church property to provide secondary ingress/egress to the church property. The design the new drive aisle proposed for the residential units and the new driveway for the church at Slater Avenue are adequate to serve both the proposed residential units and the church property. The city would review the improvement plans prior to the issuance of a building permit to ensure the design of both driveways meet and comply with city driveway standards. The project does not propose any roadway or site access designs that would have any significant traffic or circulation hazards or impacts.

- d) **Result in inadequate emergency access? Less Than Significant Impact.** The existing public streets and circulation system would continue to provide adequate site access for emergency vehicle access. Police, fire, paramedic/ambulance and other emergency vehicles would have adequate site access to respond to on-site emergencies to the site with a proposed driveway for the proposed residential development. The project proposes a second driveway to the site from Slater Avenue at the northwest corner of the church that would provide a second driveway for emergency access to the church site. This second access point would improve emergency access to the site and have a positive impact. The project driveway and the second driveway at Slater Avenue has been reviewed by the City, including the police and fire departments to ensure the site access driveways have adequate widths and turning radius for emergency vehicles to enter and exit the site. The project would not impact emergency access to the site.

XVIII. TRIBAL CULTURAL RESOURCES: Would the project:

- 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). Potential Impact Unless Mitigation Incorporated.** As required by AB 52, the City mailed letters to the area Native American Indians that are on record with the City that may have cultural resources associated with the site. The Gabrieleño Band of Mission Indians – Kizh Nation (Kizh Nation) submitted a letter to the City requesting consultation.

Because the project site lies within the ancestral tribal territory of the Kizh Nation, tribal cultural resources could exist on the site. The following mitigation measures are recommended to reduce potential impacts to Tribal resources, if present.

Mitigation Measure No. 4 The project developer shall retain a qualified Native American monitor of Gabrieleño Ancestry to conduct a Native American Sensitivity Training for construction personnel prior to commencement of any excavation or grading activities. The training session shall include a handout and focus on how to identify Native American resources that may be encountered during earthmoving activities and the procedures to be followed in such an event, the duties of the Native American monitor, and the general steps a qualified Native American monitor would follow in conducting a salvage investigation if one is necessary

Mitigation Measure No. 5 In the event that archaeological or Native American resources are unearthed during ground-disturbing activities, ground-disturbing activities shall be halted or diverted away from the vicinity of the find so that the find can be evaluated. A buffer area of at least 50 feet shall be established around the find where construction activities shall not be allowed to continue until a qualified Native American monitor has examined the newly discovered artifact(s) and has evaluated the area of the find. Work shall be allowed to continue outside of the buffer area. A qualified Native American Monitor of Gabrieleño Ancestry shall evaluate all archaeological resources unearthed by project construction activities. If the resources are Native American in origin, the Tribe shall coordinate with the developer regarding treatment and curation of these resources. Typically, the Tribe would request reburial or preservation for educational purposes. If archaeological features are discovered, the Native American monitor shall report such findings to the City of Fountain Valley Planning and Building Director. If the archaeological resources are found to be significant, an archaeologist hired by the project developer and acceptable to the City shall determine the appropriate actions, in cooperation with the City that shall be taken for exploration and/or salvage in compliance with CEQA Guidelines Section 15064.5 (f).

Implementation of the recommended mitigation measures would reduce potential tribal cultural resource impacts to less than significant.

- 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 Resources Code Section 5024.1, the lead agency shall consider the significance of the**

resource to a California Native American tribe. Potentially Significant Unless Mitigation Incorporated. As discussed in section “XVIII.a.i.” above, the project could significantly impact tribal resources if present. The implementation of the recommended mitigation measures would reduce potential impacts to tribal resources to less than significant.

XIX. UTILITIES AND SERVICE SYSTEMS: Would the project:

- a) **Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunication facilities, the construction or relocation of which could cause significant environmental effects? Less Than Significant Impact.** The existing water main in Ward Street adjacent to the site has capacity to provide the required water supply for both fire flow and the potable water demand of the project without the need to construct new water supply facilities or expand existing facilities. The existing sewer line in Ward Street also has capacity to serve the project without a need to upgrade or increase the size of the sewer line. All other utilities required to serve the project, including drainage, electricity, natural gas and telecommunications are in Ward Street and would not have to be expanded or relocated. The project developer would have to extend to the existing facilities to the site, but none of the existing facilities would have to be improved that could cause significant environmental impacts. The project would not have any significant public utility impacts.
- b) **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.** The project is estimated to consume approximately 3,636 gallons of water per day³⁰. Based on the City’s Urban Water Management Plan the City has an adequate water supply to meet the demand of the project into the future. The project would have a less than significant impact on water supply.
- c) **Result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project’s projected demand in addition to the provider’s existing commitments? Less Than Significant Impact.** Please see section “XIX.b” above.
- d) **Be served by a landfill with sufficient permitted capacity to accommodate the project’s solid waste disposal needs? Less Than Significant Impact.** The construction of the project would generate various types of debris, including asphalt, metal, wood, etc. that cannot be recycled would be hauled to a landfill. Once operational, the project is estimated to generate approximately 48 pounds of solid waste per day.³¹

Republic Services is the current contract solid waste hauler for the City of Fountain Valley and would serve the project. The solid waste that is collected in Fountain Valley is taken to a Materials Recovery Facility (MRF) in Huntington Beach. All recyclables are recovered and the remaining solid waste is taken to the Frank R. Bowerman Landfill. The City of Fountain Valley adopted a Source Reduction and Recycling Element (SRRE) in 1992 that outlines the City’s commitment to a 25% solid waste reduction by 1995 and a 50% reduction by 2000. The solid waste generated by the project would be recycled and the materials that cannot be recycled would be hauled to the Frank R. Bowerman Landfill. The city’s waste hauler would actively recycle the solid waste generated by the project to reduce the amount of material that is hauled to the landfill. The solid

³⁰ 100 gallons/person/day and 3.03 people/household.

³¹ <http://www.calrecycle.ca.gov/> Residential - 4 pounds/day/unit.

waste generated by the project would have a less than significant impact on the life expectancy of any of the landfills that serve the project.

- g) **Comply with federal, state, and local statutes and regulations related to solid waste? Less Than Significant Impact.** The City of Fountain Valley complies with all federal, state, and local statutes and regulations related to solid waste. The project would not have any solid waste impacts because the residents would be required to comply with all applicable solid waste statutes and regulations and large quantities of solid waste would not be generated.

XX. WILDFIRE: If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:

- a) **Substantially impair an adopted emergency response plan or emergency evacuation plan? No Impact.** Based on review of the Very High Fire Hazard Severity Zones in Local Responsibility Areas and State and Federal Responsibility Areas map, the City of Fountain Valley is not located within a Very High Fire Hazard Severity Zone.³² Furthermore, a review of the Fire Hazard Severity Zones in State Responsibility Areas map, the City of Fountain Valley is not located in a Moderate, High or Very High fire hazard zone.³³ The closest Moderate, High or Very High fire hazard zone to the project site is the open space that extends along the south side of University Drive from Culver Drive east to Ridgeline Drive in the City of Irvine and approximately eight miles southeast of the project. The project would not impair or impact any emergency response or emergency evacuation plan associated with an emergency response to a fire in this specific Very High fire hazard zone or any other designated local, state or Federal fire hazard zone in Orange County.
- 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? No Impact.** As discussed in section "XX. a." above, the project is not in a Moderate, High or Very High fire hazard zone and the closest designated fire hazard zone is approximately eight miles southeast of the project. The project site and surrounding properties are generally flat with no significant topographic relief and expose project occupants to wildfire risks. Santa Ana winds could expose project occupants to smoke and other pollutants associated with wildfires located east of the city. However, that exposure would not be site specific because much of the city and general geographic area would be exposed and not the project specifically. The project would not expose project occupants to pollutant concentrations from a wildfire due to slope, prevailing winds or other factors.
- 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? No Impact.** The project would be required to install fire sprinklers as required by the CBC. However, the project would not be required to install and maintain any roads, fuel breaks, emergency water sources, power lines or other utilities to protect the project and the immediate area from a wildfire because the project is not located in a Moderate, High or Very High fire hazard zone as discussed in section "XX. a." above.
- 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? No Impact.** As discussed in Section "XX. a." above, the project is not located within a Moderate, High or Very High fire hazard zone. As discussed in section "XX. b." above, the project site and surrounding properties

³² http://frap.fire.ca.gov/webdata/maps/orange/fhszl_map.30.pdf

³³ http://frap.fire.ca.gov/webdata/maps/orange/fhszs_map.30.pdf

are generally flat with no significant topographic relief that would expose structures or project occupants to significant risks due to downslope or downstream flooding or landslides. Because the project is not located in a fire hazard zone or downstream of any hillsides or areas of topographic relief the project would not expose either project residents or proposed structures to significant risks due to downstream or downstream flooding or landslides due to post-fire slope instabilities.

XXI. MANDATORY FINDINGS OF SIGNIFICANCE:

- 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.*** The 1.63-acre site is developed with a surface level parking lot for use by the Coastal church and a private school and the rest of the site is vacant land. There is minimal vegetation on the site. There are no important plants or wildlife on the site that would be impacted by the project. Because there are no buildings on the site no examples of buildings representing California history or prehistory would be impacted. The project would not significantly impact biological or historical resources.

- b) ***Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.) Less Than Significant Impact.*** The City of Fountain Valley has identified two cumulative projects that, along with the proposed project, could have cumulative impacts. The cumulative projects are shown in Table 21 and their locations are shown in Figure 13.

**Table 21
Cumulative Projects**

Project	Address	Project Type	Units/Sq. Ft.	Status
Welbrook Senior Living	11360 Warner Avenue	Senior Living	142 units/162 beds	Approved Construction Pending
Crossings Specific Plan	Bounded by Talbert Avenue on the north, Ward Street on the west, Ellis Avenue on the south, Santa Ana River on the east	Mixed Use	491 residential units Net increase of 258,010 square feet of industrial/commercial development	Approved Construction Pending

Based on the air quality report, the short-term construction emissions and the long-term operational emissions of the project would not exceed any adopted air emission thresholds. The project would not have any individual or cumulative noise or traffic impacts. In addition, the project would not have any significant individual or cumulative impacts associated with aesthetics, hydrology, soils and geology,



land use, public services or utilities that along with the cumulative projects listed in Table 23 would result in any significant cumulative impacts.

- c) ***Does the project have environmental effects that would cause substantial adverse effects on human beings, either directly or indirectly? Less Than Significant Impact.*** There are no significant impacts associated with the proposed project that would cause substantial adverse effects and significantly impact human beings either directly or indirectly.