City of Long Beach

Dorado Residential Development Project

Initial Study

August 2016

rincon

Environmental Scientists Planners Engineers

Dorado Residential Development Project

Draft
Initial Study

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August 2016

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INITIAL STUDY

1. **Project Title:**
   Dorado Residential Development Project

2. **Lead Agency Name and Address:**
   City of Long Beach
   333 West Ocean Boulevard 5th Floor
   Long Beach, California 90802

3. **Contact Person and Phone Number:**
   Craig Chalfant, Planner
   (562) 570-6368

4. **Project Location:**
   The project site is located on a 5.8-acre site at 3655 North Norwalk Boulevard in the northeastern portion of the city of Long Beach. The site is along the west side of Norwalk Boulevard, north of East Wardlow Road and immediately adjacent to the corporate boundary that divides the cities of Long Beach and Hawaiian Gardens. The Artesia-Norwalk Drainage Channel runs along the eastern boundary of the site. Figure 1 shows the regional location and Figure 2 shows the project site location.

5. **Project Sponsor's Name and Address:**
   LB El Dorado Park 3655, LLC
   Matthew Hamilton
   4100 MacArthur Boulevard Suite 330
   Newport Beach, CA 92660
   (949) 335-3300

6. **General Plan Designation:**
   Institutional and School District

7. **Zoning:**
   Institutional

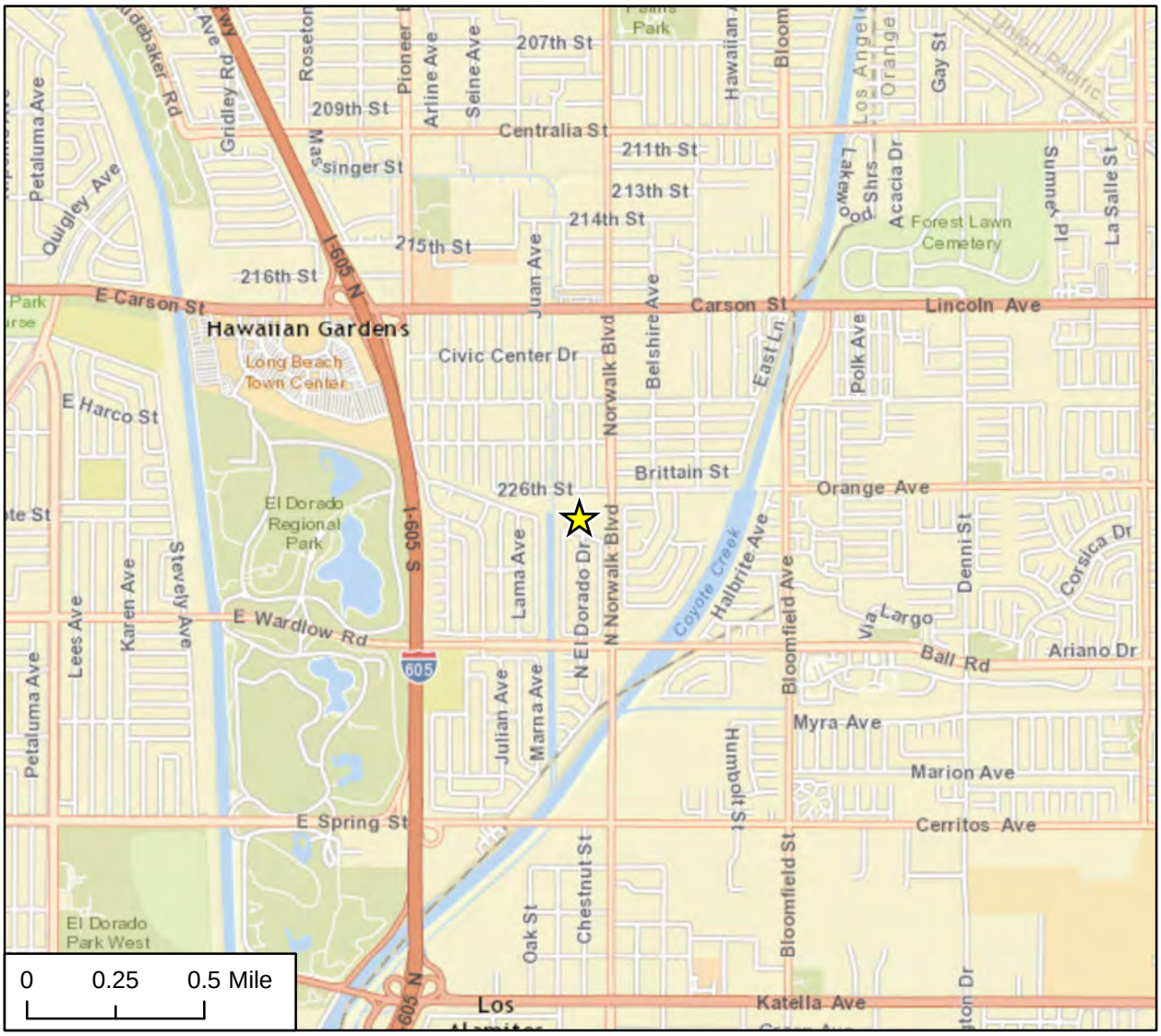
8. **Description of Project:**
   The project site is currently developed with a 27,709 square foot (sf) church facility with a parking lot, a landscaped area, and a cell tower. The church operates a pre-school on the site. The proposed project would involve demolition of the existing church and construction of 40 four bedroom single family residences. The residences would all be two stories tall. As shown on Figure 3 (Site Plan), the 40 residential lots would average 4,005 sf in size, ranging from 3,696 sf to 5,696 sf. The subdivision of the site would result in five additional lots, Lots A, B, C, D, and E as shown on Figure 3 (Site Plan). Lot A would be located in the northwest corner of the site and would contain the landscaped area and the cell tower. Lot B would run through the middle of the site and would contain a landscaped area, a paseo area and a "Tot Lot" play area. Lot C would contain the private road and the utilities. Finally, Lots D and E are smaller landscaped areas.

As shown on Figure 3, the project would take access from North Norwalk Boulevard along the eastern site boundary. The internal road would be 26-feet wide and would loop through the site with 8.5 feet of street parking in portions. The grand entry would have 20-foot wide lanes around a center island. The grand entry would lead to a 26-foot wide gated entry drive. Additional pedestrian access points would be provided on both the north and south sides of the vehicle access point on North Norwalk Boulevard. The cell tower is not proposed to be removed for the project. The area around the cell tower would be landscaped. The site would be surrounded with block walls except for the vehicle and pedestrian access points along North Norwalk Boulevard. Sewer and water easements would run under the proposed road. New water lines would connect to existing water lines at the vehicle and pedestrian access points. A sewer line would run north at the western boundary of the site and connect to existing sewer service north of the project site.

The project requires a General Plan Amendment, Zone Change and Site Plan Review approval.

9. **Surrounding Land Uses and Setting:**
The project site is located on the west side of North Norwalk Boulevard, immediately south of the corporate boundary that divides the cities of Long Beach and Hawaiian Gardens. The site is bordered by senior apartments to the north, single family residences to the south and east, and the Artesia-Norwalk Drainage Channel to the west. Single family residences are located further to the west across the drainage channel.

10. **Other Public Agencies Whose Approval is Required:**
The City of Long Beach (City) is the lead agency for the proposed project, and no discretionary approvals would be required from other agencies.



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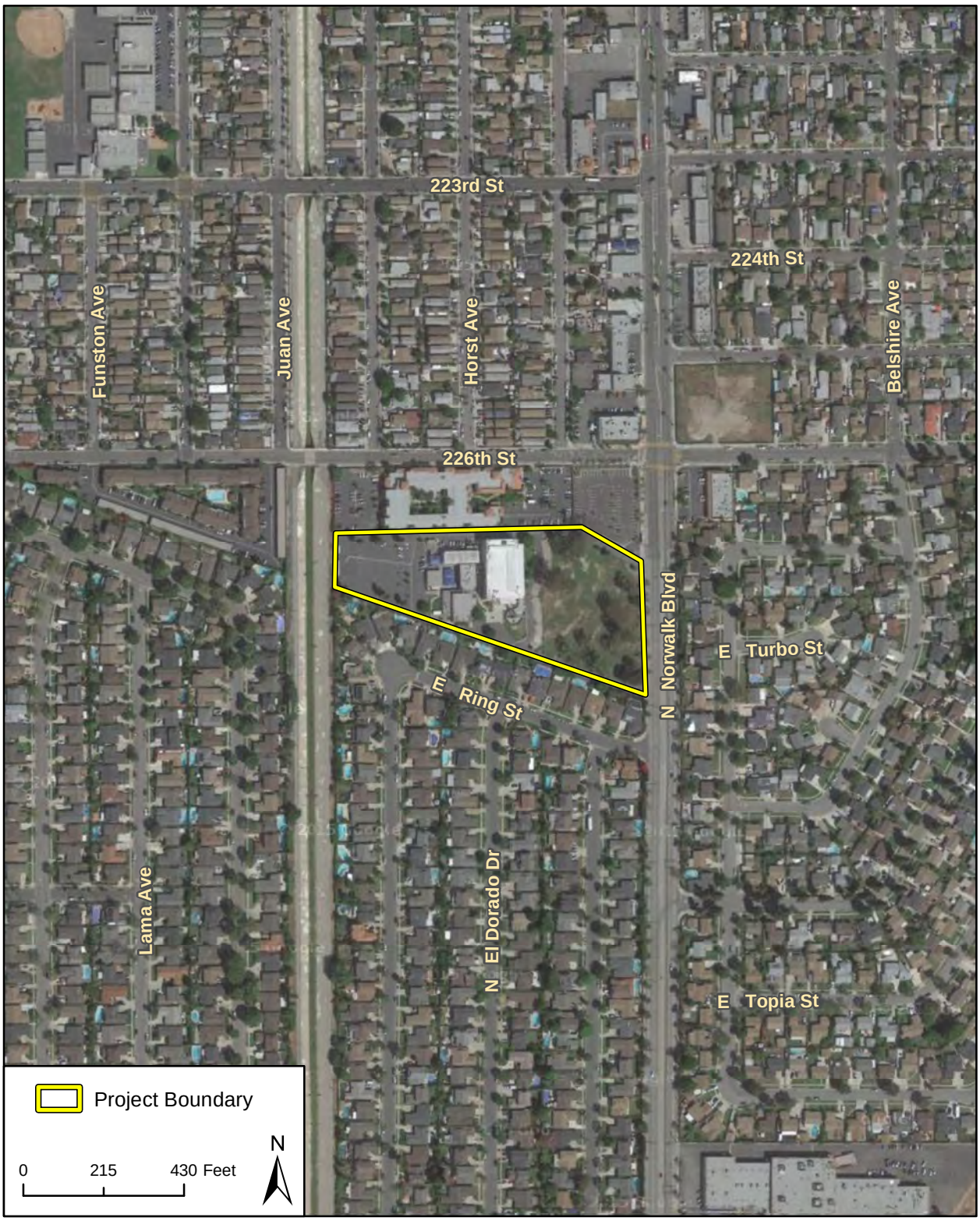
N

Project Location

Regional Location

Figure 1



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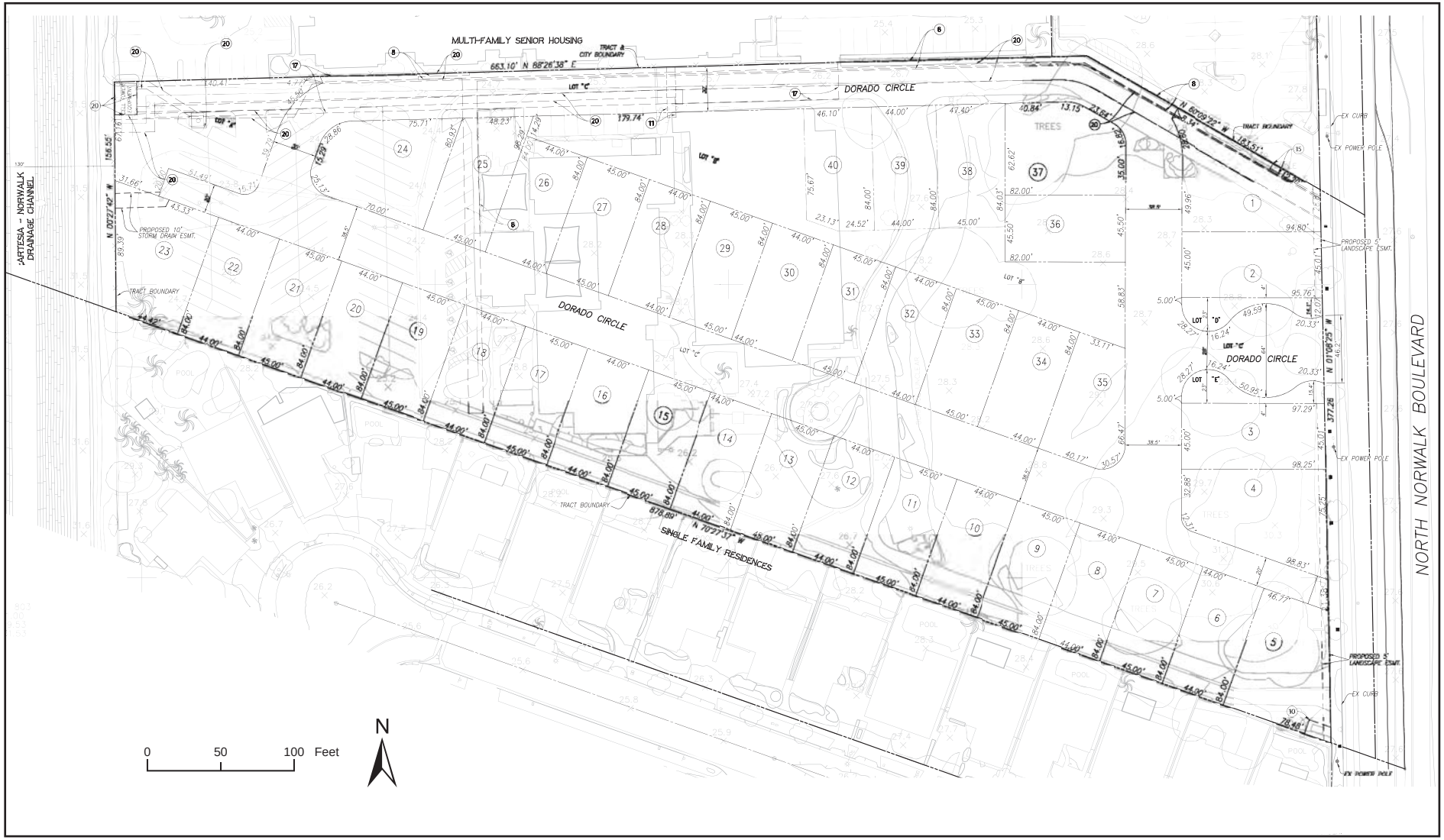
Project Location

Figure 2



Source: Hunsaker & Associates, January 2016

Site Plan

Figure 3

City of Long Beach

Source: Conceptual Design & Planning Company, January 26, 2016.

Landscaping Plan

Figure 4

City of Long Beach

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" or "Potentially Significant Unless Mitigation Incorporated" as indicated by the checklist on the following pages.

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

DETERMINATION

On the basis of this initial evaluation:

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

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

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

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

☐ I find that although the proposed project could have a significant effect on the environment, because all potential 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 8/16/16

ENVIRONMENTAL CHECKLIST

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

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

The project site is located in a residential area in Long Beach. There are existing single family residences to the south, east, and west of the project site. The site and surroundings are flat and do not offer scenic vistas or views of any identified scenic resources. There are no views of the ocean from the project site as it is located approximately 6 miles from the coastline.

The proposed project involves the construction of 40 two-story single family residences. The proposed residences are similar in character and height to the residences in the area as shown in photos 5 and 6 on Figure 5c. Although the project would alter views from adjacent residences and Norwalk Boulevard, it would not adversely affect any identified scenic vistas. This impact would be less than significant and further analysis of this issue in an Environmental Impact Report (EIR) is not warranted.

LESS THAN SIGNIFICANT IMPACT

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

The only designated scenic route established by the Scenic Routes Element is Ocean Boulevard, which is located approximately 6 miles south of the project site near the mouth of the Los Angeles River. The project site is not within the viewshed of Ocean Boulevard. No state designated scenic highways are located within the city of Long Beach. The project site is an existing church that has been identified as a potential historic resource. However, the church is not visible from a state scenic highway. The site lacks scenic resources or rock outcroppings.

Photo 1: Church, looking east.

Photo 2: Church, looking west.

Site Photos

Figure 5a

Photo 3: Project site, looking northwest.

Photo 4: Project site, looking south.

Site Photos

Figure 5b

Photo 5: Surroundings, looking east.

Photo 6: Surroundings, looking east.

Site Photos

Figure 5c

Photo 7: Surroundings, looking north.

Photo 8: Surroundings, looking north.

Site Photos

Figure 5d

The project site contains eucalyptus and pine trees in the eastern landscaped area of the site and in the parking lot, as shown on photos 1 and 2 on Figure 5a. These trees would be removed in order to construct the proposed project. The project includes a landscaping plan (Figure 4 on page 6), which shows that trees would be planted in the northwest corner of the property, along the internal street frontages, and at the access point along North Norwalk Boulevard. As such, impacts would be less than significant and further analysis of this issue in an EIR is not warranted.

LESS THAN SIGNIFICANT IMPACT

c) Would the project substantially degrade the existing visual character or quality of the site and its surroundings?

The project site is located in a predominately residential area of Long Beach. The site photos on Figure 5a-d show the project site vicinity. The areas to the south, east, and west are developed with single family residences (photos 5 and 6) and the area to the north is developed with a senior housing facility (photos 7 and 8).

The proposed project involves the demolition of the existing onsite church and construction of 40 single family residences that would be similar in density and height to the adjacent residences. Although the project would alter the visual character of the site by replacing the church with residential development, the new development would be compatible with other developments in the area. This impact would be less than significant and further analysis of this issue in an EIR is not warranted.

LESS THAN SIGNIFICANT IMPACT

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

The project site is currently developed with a church, landscaped area, and parking lot. The site and its surroundings are located in an urbanized environment with high levels of nighttime lighting.

The proposed project would involve demolition of the existing church facility and construction of 40 single family residences. The church has existing lighting associated with the parking lot as well as security lighting for the buildings. Light and glare from the proposed residential project would be similar to or less than that generated by the existing church and would be comparable to that associated with the existing single family residences located to the south, east, and west of the site. Light and glare impacts would be less than significant. Further analysis of this issue in an EIR is not warranted.

LESS THAN SIGNIFICANT IMPACT

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
II. Agriculture and Forest Resources -- In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. -- Would the project:				
a) Convert Prime Farmland, Unique Farmland, Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	■
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	■
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?	☐	☐	☐	■
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	■
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?	☐	☐	☐	■

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

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

c) Would the project 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))?

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

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

There are no agricultural zones or forest lands within Long Beach, which has been fully urbanized for over half a century. The proposed project would have no impact upon agricultural or forest resources. Further analysis of these issues in an EIR is not warranted.

NO IMPACT

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

The project site is within the South Coast Air Basin (the Basin), which is under the jurisdiction of the South Coast Air Quality Management District (SCAQMD). The local air quality

management agency is required to monitor air pollutant levels to ensure that applicable air quality standards are met and, if they are not met, to develop strategies to meet the standards.

Depending on whether or not the standards are met or exceeded, the Basin is classified as being in "attainment" or "nonattainment." The part of the Basin within which the project site is located is in nonattainment for both the federal and state standards for ozone, particulate matter (PM_{10} and $PM_{2.5}$) and lead, as well as the state standard for nitrogen dioxide (NOx) (California Air Resources Board, February 2011, April 2013). Thus, the Basin currently exceeds several state and federal ambient air quality standards and is required to implement strategies that would reduce the pollutant levels to recognized acceptable standards. This non-attainment status is a result of several factors, the primary ones being the naturally adverse meteorological conditions that limit the dispersion and diffusion of pollutants, the limited capacity of the local airshed to eliminate pollutants from the air, and the number, type, and density of emission sources within the Basin. The SCAQMD has adopted an Air Quality Management Plan (AQMP) that provides a strategy for the attainment of state and federal air quality standards.

The SCAQMD has adopted the following thresholds for temporary construction-related pollutant emissions:

- *75 pounds per day reactive organic compounds (ROC)*
- *100 pounds per day NO_x*
- *550 pounds per day carbon monoxide (CO)*
- *150 pounds per day sulfur oxides (SO_x)*
- *150 pounds per day PM_{10}*
- *55 pounds per day $PM_{2.5}$*

The SCAQMD has adopted the following thresholds for operational pollutant emissions:

- *55 pounds per day ROC*
- *55 pounds per day NO_x*
- *550 pounds per day CO*
- *150 pounds per day SO_x*
- *150 pounds per day PM_{10}*
- *55 pounds per day $PM_{2.5}$*

The SCAQMD has also developed Localized Significance Thresholds (LSTs) in response to the Governing Board's Environmental Justice Enhancement Initiative (1-4), which was prepared to update the SCAQMD's California Environmental Quality Act (CEQA) Air Quality Handbook. LSTs were devised in response to concern regarding exposure of individuals to criteria pollutants in local communities. LSTs represent the maximum emissions from a project that would not cause or contribute to an air quality exceedance of the most stringent applicable federal or state ambient air quality standard at the nearest sensitive receptor, taking into consideration ambient concentrations in each source receptor area (SRA), project size, and distance to the sensitive receptor. LSTs only apply to emissions within a fixed stationary location, including idling emissions during both project construction and operation. LSTs have been developed only for NOx, CO, PM_{10} and $PM_{2.5}$. LSTs do not apply to mobile sources such as cars on a roadway (Final Localized Significance Threshold Methodology, SCAQMD, June 2003).

LSTs have been developed for emissions within areas up to five acres in size, with air pollutant modeling recommended for activity within larger areas. The SCAQMD provides a lookup table for project sites that measure 1, 2, 3, 4, or 5 acres, with allowable emissions for receptors within 25, 50, 100, 200, and 500 meters. The entire project site is approximately 5.8 acres. The site is located in Source Receptor Area 4 (SRA-4), which is designated by the SCAQMD as South Coastal LA County. LST thresholds for a 5-acre site in SRA-4 are shown in Table 1 for reference (SCAQMD, June 2003). The sensitive receptors closest to the project site are the senior apartments located approximately 20-feet north of the site and the single family residences located approximately 20-feet south of the site.

Table 1
SCAQMD LSTs for Emissions in SRA-4

Pollutant	Allowable emissions as a function of receptor distance in meters from a one acre site (lbs/day)				
	25	**50**	**100**	**200**	**500**
Gradual conversion of NO_x to NO_2	123	118	126	141	179
CO	1,530	1,982	2,613	4,184	10,198
PM_{10} (construction)	14	42	58	92	191
$PM_{2.5}$ (construction)	8	10	18	39	120

Source: SCAQMD. http://www.aqmd.gov/CEQA/handbook/LST/appC.pdf,

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

According to the SCAQMD Guidelines, to be consistent with the AQMP, a project must conform to the local General Plan and must not result in or contribute to an exceedance of the City's population growth forecast.

Implementation of the proposed project involves the demolition of the existing church and the construction of 40 single family residences. As discussed in Section XIII(a), *Population*, the California Department of Finance (DOF) states that the population of Long Beach in 2016 is 484,958. The Southern California Association of Governments (SCAG) estimates that the city's population will increase to 534,100 by 2035, an increase of 49,142.

The DOF estimates that there are approximately 2.84 persons per household in Long Beach (Department of Finance, 2016). Based on this average, the 40-unit project would accommodate approximately 114 people. This would increase the population of Long Beach to 485,072. The population increase associated with the proposed project is within the population forecast for the City. Therefore, the project would not contribute to an exceedance of the City's population growth forecast. Furthermore, the project does not conflict with the City's General Plan. Impacts would be less than significant and further analysis of this issue in an EIR is not warranted.

LESS THAN SIGNIFICANT IMPACT

b) Would the project violate any air quality standard or contribute substantially to an existing or projected air quality violation?

c) Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?

Implementation of the proposed project would generate both temporary construction and long-term operational emissions. Emissions generated during construction are typically associated with the operation of heavy diesel equipment and grading. Operational emissions would primarily be dependent upon vehicular traffic increases. A discussion and analysis of both construction- and operational-phase emissions is provided below.

Construction Emissions

The Air Basin is in non-attainment for the federal 8-hour ozone standard, the State 1-hour ozone standard, the federal 24-hour PM_{10} standard, and the State 24-hour and annual PM_{10} standards. The Basin is in attainment or unclassified for all other federal and State ambient air quality standards. The ozone precursors VOC and NO_x, in addition to fine particulate matter ($PM_{2.5}$ and PM_{10}), are the pollutants of primary concern for projects located in the SCAQMD. A project would have a significant adverse impact on regional air quality if it generates emissions exceeding adopted SCAQMD thresholds.

Temporary construction emissions were estimated using the California Emissions Estimator Model (CalEEMod). For purposes of modeling, it was assumed that construction would take approximately 15 months. Table 2 compares the maximum daily construction emissions that would result from proposed site preparation, grading, and paving to SCAQMD construction emission thresholds, including LSTs. The CalEEMod output sheets detailing construction emissions by phase are shown in Appendix B.

Table 2
Construction Emissions

	SCAQMD Daily Thresholds (lbs/day)					
Pollutant	**ROG**	**NO_x**	**CO**	**PM_{10}**	**$PM_{2.5}$**	**SO_x**
Maximum Daily Emissions	62.8	93.3	69.5	30.1	18.1	0.1
SCAQMD Thresholds (peak day)	*75*	*100*	*550*	*150*	*55*	*150*
Exceed Daily SCAQMD Thresholds?	***No***	***No***	***No***	***No***	***No***	***No***
	Local Significance Thresholds (lbs/day)					
Pollutant	**ROG**	**NO_x**	**CO**	**PM_{10}**	**$PM_{2.5}$**	**SO_x**
Maximum Daily Emissions	60.5	54.6	41.1	11.1	7.2	0
Local Significant Thresholds (LSTs)	n/a	123	1,530	14	8	n/a
Threshold Exceeded?	**n/a**	**No**	**No**	**No**	**No**	**n/a**

Sources: SCAQMD LST Spreadsheet for a 5-acre site in SRA-4 and CalEEMod; See Appendix B for complete CalEEMod results. CalEEmod V2013.2.2; SCAQMD CEQA Air Quality Handbook, 1993.

As indicated in Table 2, maximum daily emissions generated by construction of the proposed project, including demolition of the existing church, would not exceed SCAQMD regional

thresholds. Construction activities (including site preparation, grading, and paving) would also be required to comply with SCAQMD Rule 403, Fugitive Dust, which requires the implementation of Reasonably Available Control Measures (RACM) for all fugitive dust sources, and the AQMP, which identifies Best Available Control Measures (BACM) and Best Available Control Technologies (BACT) for area sources and point sources, respectively. Implementation of these requirements would further reduce project impacts associated with fugitive dust. Demolition activity would also be required to comply with Rule 1403 (Asbestos Emissions from Demolition/Renovation Activities), which requires that the owner or operator of any demolition or renovation activity have an asbestos survey performed prior to demolition and provide notification to the SCAQMD prior to commencing demolition activities.

Construction-related impacts would be less than significant and further analysis of this issue in an EIR is not warranted.

LESS THAN SIGNIFICANT IMPACT

Operational Emissions

Long-term operational emissions associated with the proposed project are those attributed to vehicle trips (mobile emissions), the use of natural gas (energy emissions), consumer products, and architectural coatings. CalEEMod was used to calculate emissions based on the land uses for the proposed project and the number of vehicle trips generated by development. Development of the proposed project would be required to comply with all applicable rules set forth by the SCAQMD and all applicable policies of the City of Long Beach General Plan. Emissions were also calculated for the existing buildings that would be removed in order to construct the proposed project. These emissions were subtracted from the emissions from the proposed project to show the net emissions that would result from implementation of the project. As shown in Table 3, the project would result in a net reduction in emissions in the long term. Therefore, no significant long-term impact to regional air quality would occur and further analysis of this issue in an EIR is not warranted.

LESS THAN SIGNIFICANT IMPACT

Table 3
Estimated Operational Emissions (lbs/day)

Emission Source	ROG	NO_x	CO	PM_{10}	$PM_{2.5}$
Area	2.4	0.0	3.3	0.0	0.0
Energy	0.0	0.3	0.1	0.0	0.0
Mobile	1.3	3.8	15.0	3.0	0.8
Total Emissions	**3.7**	**4.1**	**18.4**	**3.0**	**0.8**
Emissions from Existing Buildings	*6.0*	*11.0*	*47.9*	*5.4*	*1.6*
Total Net Emissions	**(2.3)**	**(6.9)**	**(29.5)**	**(2.4)**	**(0.8)**
SCAQMD Thresholds	*55*	*55*	*550*	*150*	*55*
Exceeds Threshold?	***No***	***No***	***No***	***No***	***No***

() denotes a negative number
Source: CalEEMod calculations, see Appendix B.

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

Certain population groups, such as children, the elderly, and people with health problems, are considered particularly sensitive to air pollution. Sensitive receptors consist of land uses that are more likely to be used by these population groups. Sensitive receptors include health care facilities, retirement homes, school and playground facilities, and residential areas. The sensitive receptors nearest to the project are the senior apartments located directly north of the site and the single family residences located immediately south of the site. As indicated above, neither temporary construction emissions nor long-term project emissions would exceed SCAQMD thresholds; therefore, the project would not subject sensitive receptors to significant pollutant concentrations and further analysis of this issue in an EIR is not warranted.

LESS THAN SIGNIFICANT IMPACT

e) Would the project create objectionable odors affecting a substantial number of people?

The project proposes to construct 40 single family residences. Odors would be generated by the operation of equipment during the construction phases of the proposed project. Odors associated with construction machinery would be those of diesel machinery, which includes the smells of oil or diesel fuels. The odors would be limited to the time that construction equipment is operating. All off-road construction equipment would be covered by the CARB anti-idling rule (SS2449(d)(2)), which limits idling to 5 minutes. Some of these odors may reach sensitive receptors adjacent to the project site; however, the impacts would be temporary in nature. Residential uses typically do not create objectionable odors. Therefore, impacts would be less than significant and further analysis of this issue in an EIR is not warranted.

LESS THAN SIGNIFICANT IMPACT

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
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 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, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☐	☐	■
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	■
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☐	■
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	■	☐
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	■

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

The project site is currently developed with a church and parking lot. The project site is within an urbanized area and does not contain native biological habitats or habitats for special status species. Existing onsite vegetation consists of introduced nonnative grasses and eucalyptus trees.

The project involves the demolition of the existing church and construction of 40 single family residences. The project involves the removal of existing grass areas and mature trees in order to construct the residences. Onsite trees may provide suitable nesting habitat for a variety of bird species that are afforded protection under the federal Migratory Bird Treaty Act (MBTA – 16 United State Code Section 703-711). The proposed project has the potential to impact migratory and other bird species if construction activities occur during the nesting season, which is typically February 15 through September 15. Construction-related disturbances could result in nest abandonment or premature fledging of the young. Therefore, the proposed project could result in potentially significant impacts unless mitigation is incorporated.

POTENTIALLY SIGNIFICANT IMPACT

Mitigation Measure

Mitigation Measure BIO-1 would be required to reduce any potential impacts to migratory and resident nesting bird species to a less than significant level.

BIO-1 **Nesting Birds.** If vegetation clearing or other project construction is to be initiated during the bird breeding season (February 1 through August 31), pre-construction/grading surveys shall be conducted by a qualified biologist. Surveys shall be conducted no more than three days prior to the initiation of clearance/construction work. If a nesting bird or special-status species is located, consultation with the local California Department of Fish and Wildlife representative shall occur to determine what avoidance actions may be taken. If any active *non-raptor* bird nests are found, a suitable buffer area (varying from 250-300 feet), depending on the particular species found, shall be established from the nest, and that area shall be avoided until the nest becomes inactive (vacated). If any active *raptor* bird nests are found, a suitable buffer area of typically 250-500 feet from the nest shall be established, and that area shall be avoided until the nest becomes inactive (vacated). The limits of construction to avoid a nest shall be established in the field with flagging and stakes or construction fencing. Construction personnel shall be instructed on the sensitivity of the area by a qualified biologist hired by the project proponent and endorsed by the City of Long Beach. Encroachment into buffers around active nests must be conducted at the discretion of a qualified biologist. The applicant shall record the results of the recommended protective measures described above to document compliance with

applicable State and federal laws pertaining to the protection of nesting birds.

With incorporation of Mitigation Measure BIO-1, impacts would be less than significant. No further analysis of this issue in an EIR is required.

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

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

The project site is located in an urban setting and is developed with a church. The project site does not include any riparian or sensitive natural communities. No impact would occur and further analysis of this issue in an EIR is not warranted.

NO IMPACT

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

The project site contains a church, parking lot, and landscaped area. The site is within an urbanized area and does not provide for any substantial movement or nursery habitat. The proposed project would not interfere with the movement of any native resident or migratory fish or wildlife species or affect any nursery sites as compared to the current site conditions. No impact would occur and further analysis of this issue in an EIR is not warranted.

NO IMPACT

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

The proposed project would not conflict with any local policies or ordinances protecting biological resources. The eucalyptus trees located in the eastern portion of the site would be removed in order to construct the proposed 40 single family residences. However, these trees are not protected by any local policies or ordinances. Further analysis of this issue in in EIR is not warranted.

LESS THAN SIGNIFICANT IMPACT

f) Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

The project site is not within the area of any adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. No impact would occur and further analysis of this issue in an EIR is not warranted.

NO IMPACT

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
V. Cultural Resources				
-- Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	■	☐	☐	☐
b) Cause a substantial adverse change in the significance of an archaeological resource as defined in §15064.5?	☐	■	☐	☐
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	■	☐	☐
d) Disturb any human remains, including those interred outside of formal cemeteries?	☐	■	☐	☐

a) Would the project cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?

The project would require the demolition of the existing church that is located on the site. While there are no designated historic buildings on the project site and the project is not located in a historic district (City of Long Beach, 2014), the building is unique and could potentially be eligible for listing on a historic register. Impacts will be analyzed further in an EIR.

POTENTIALLY SIGNIFICANT IMPACT

b) Would the project cause a substantial adverse change in the significance of an archaeological resource as defined in §15064.5?

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

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

The site is relatively flat and does not contain unique geologic features. The project site has been previously graded and paved; therefore, the likelihood that intact archaeological resources, paleontological resources, or human remains are present is low. Because the site has been developed previously, any surficial paleontological resources that may have been present at one time have likely been disturbed. Therefore, the topmost layers of soil in the project area are not likely to contain substantive fossils. Although project implementation is not expected to uncover archaeological resources, paleontological resources or human remains, the possibility for such resources exists and impacts would be potentially significant.

POTENTIALLY SIGNIFICANT UNLESS MITIGATION INCORPORATED

Mitigation Measures

The following mitigation measures would reduce impacts to unknown cultural resources to a less than significant level.

CR-1 **Resource Recovery Procedures.** In the event that archaeological resources are unearthed during project construction, all earth disturbing work within the vicinity of the find must be temporarily suspended or redirected until an archaeologist has evaluated the nature and significance of the find. After the find has been appropriately mitigated, work in the area may resume. A Native American representative shall be retained to monitor any mitigation work associated with Native American cultural material.

CR-2 **Human Remains Recovery Procedures.** If human remains are unearthed, State Health and Safety Code Section 7050.5 requires that no further disturbance shall occur until the County Coroner has made the necessary findings as to the origin and disposition pursuant to the Public Resources Code Section 5097.98. If the remains are determined to be of Native American descent, the coroner has 24 hours to notify the Native American Heritage Commission. Additional surveys will be required if the Project changes to include unsurveyed areas.

With incorporation of mitigation measures CR-1 and CR-2, impacts would be less than significant. Further analysis of this issue in an EIR is not warranted.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
VI. Geology and Soils				
-- Would the project:				
a) Expose people or structures to 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	☐	☐	■	☐

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
VI. Geology and Soils				
-- Would the project:				
Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?				
ii) Strong seismic ground shaking?	☐	☐	■	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	■	☐
iv) Landslides?	☐	☐	☐	■
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	■	☐
c) Be located on a geologic unit or soil that is unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	☐	☐	■	☐
d) Be located on expansive soil, as defined in Table 1-B of the Uniform Building Code, creating substantial risks to life or property?	☐	☐	■	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	■

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

Per Plate 2 of the Seismic Safety Element of the Long Beach General Plan (Long Beach, City of, 1988), the most significant fault system in the city is the Newport-Inglewood fault zone. This fault zone runs in a northwest to southeast angle across the southern half of the city. A portion of the Newport-Inglewood Fault Zone is located approximately 4 miles to the southwest of the project site, but no known fault lines cross through the site. This impact would be less than significant. Further analysis of this issue in an EIR is not warranted.

LESS THAN SIGNIFICANT IMPACT

a.ii) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking?

The Newport-Inglewood fault zone could create substantial ground shaking if a seismic event occurred along that fault. Similarly, a strong seismic event on any other fault system in Southern California has the potential to create considerable levels of ground shaking throughout the city. However, the project site is not subject to unusual levels of ground shaking and all new structures would be required to comply with all applicable provisions of the California Building Code (CBC). This impact would be less than significant. Further analysis of this issue in an EIR is not warranted.

LESS THAN SIGNIFICANT IMPACT

a.iii) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction?

The project site is located within an area where liquefiable materials are mapped and/or where liquefaction has occurred in the past according to the State of California Seismic Hazard Zones Los Alamitos Quadrangle (1999). However, the project site is currently developed with a church and parking lot and construction of the proposed single family residences would be required to follow CBC standards that address liquefaction hazards, including strengthening the foundation and its footings. This impact would be less than significant. Further analysis of this issue in an EIR is not warranted.

LESS THAN SIGNIFICANT IMPACT

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

Per the City of Long Beach Seismic Safety Element, the city is relatively flat and characterized by slopes that are not high (less than 50 feet) or steep (generally sloping flatter than 1-1/2:1, horizontal to vertical). The State Seismic Hazard Zone map of the Los Alamitos Quadrangle indicates that the lack of steep terrain results in only about 0.1% chance of the city lying within the earthquake-induced landslide zone for this quadrangle. Additionally, the project site and the surrounding area are flat. Therefore, there is no risk of landslides on the site. Further analysis of this issue in an EIR is not warranted.

NO IMPACT

b) Would the project result in substantial soil erosion or the loss of topsoil?

There is potential for soil erosion to occur at the site during site preparation and grading activities associated with the project. Demolition and excavation activities would be required to adhere to Section 18.95.050 of the Long Beach Municipal Code, which identifies standard construction measures regarding erosion control, including Best Management Practices (BMPs), to minimize runoff and erosion impacts from project activities. Examples of required BMPs include sediment traps, stockpile management, and methods for material delivery and storage.

The use of BMPs during construction would ensure that erosion and loss of topsoil impacts would be less than significant. Further analysis of this issue in an EIR is not warranted.

LESS THAN SIGNIFICANT IMPACT

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

Per the Long Beach General Plan Seismic Safety Element, the project site is not located in an area of slope instability. The Seismic Safety Element divides the city into four predominant soil profiles, designated as Profiles A through D. The project site is located in Profile C, which is composed of sandy and clayey alluvial materials. As stated above, the project site is located within an area where liquefiable materials are mapped and/or where liquefaction has occurred in the past according to the State of California Seismic Hazard Zones Los Alamitos Quadrangle (1999). The project would be required to be constructed in accordance with CBC standards. This would ensure that construction of the project would not result in on or off site geologic impacts. This impact would be less than significant. Further analysis of this issue in an EIR is not warranted.

LESS THAN SIGNIFICANT IMPACT

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

Per the City of Long Beach Seismic Safety Element, the city is divided into four predominant soil profiles, designated as Profiles A through D. The project site is located in Profile C, which is composed of sandy and clayey alluvial materials. No issues with expansive soils are known to be present. This impact would be less than significant. Further analysis of this issue in an EIR is not warranted.

LESS THAN SIGNIFICANT IMPACT

e) Would the project have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

The entire city is served by an existing sewer system; therefore, for the project would not involve the use of septic tanks or any other alternative waste water disposal systems. No impact would occur and further analysis of this issue in an EIR is not warranted.

NO IMPACT

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
VII. Greenhouse Gas Emissions				
-- Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	■	☐
b) Conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	■	☐

Gases that trap heat in the atmosphere are often called greenhouse gases (GHGs), analogous to the way in which a greenhouse retains heat. Common GHG include water vapor, carbon dioxide (CO_2), methane (CH_4), nitrous oxides (N_2O_x), fluorinated gases, and ozone. GHGs are emitted by both natural processes and human activities. Of these gases, CO_2 and CH_4 are emitted in the greatest quantities from human activities. Emissions of CO_2 are largely by-products of fossil fuel combustion, whereas CH_4 results from off-gassing associated with agricultural practices and landfills. Man-made GHGs, many of which have greater heat-absorption potential than CO_2, include fluorinated gases, such as hydrofluorocarbons (HFCs), perfluorocarbons (PFC), and sulfur hexafluoride (SF_6) (Cal EPA, 2006).

The accumulation of GHGs in the atmosphere regulates the earth's temperature. Without the natural heat trapping effect of GHGs, Earth's surface would be about 34° C cooler (Cal EPA, 2006). However, it is believed that emissions from human activities, particularly the consumption of fossil fuels for electricity production and transportation, have elevated the concentration of these gases in the atmosphere beyond the level of naturally occurring concentrations.

Pursuant to the requirements of SB 97, the Resources Agency adopted amendments to the *CEQA Guidelines* for the feasible mitigation of GHG emissions and analysis of the effects of GHG emissions. The adopted *CEQA Guidelines* provide regulatory guidance on the analysis and mitigation of GHG emissions in CEQA documents, while giving lead agencies the discretion to set quantitative or qualitative thresholds for the assessment and mitigation of GHGs and climate change impacts. To date, the Bay Area Air Quality Management District (BAAQMD), the SCAQMD, and the San Joaquin Air Pollution Control District (SJVAPCD) have adopted significance thresholds for GHGs. The SCAQMD threshold, which was adopted in December 2008, considers emissions of over 10,000 metric tons of carbon dioxide equivalent (CDE[1]) emissions per year to be significant. However, the SCAQMD's threshold applies only to stationary sources and is intended to apply only when the SCAQMD is the CEQA lead agency. Although not formally adopted, the SCAQMD has a recommended quantitative threshold for

[1] *Because GHGs absorb different amounts of heat, a common reference gas (CO2) is used to relate the amount of heat absorbed to the amount of the gas emissions, referred to as "carbon dioxide equivalent" (CO2e).*

all land use types of 3,000 metric tons CDE/year (SCAQMD, "Proposed Tier 3 Quantitative Thresholds – Option 1", September 2010).

Because the SCAQMD has not adopted GHG emissions thresholds that apply to land use projects where the SCAQMD is not the lead agency and no GHG emissions reduction plan or GHG emissions thresholds have been adopted in the City of Long Beach, the proposed project is evaluated based on the SCAQMD's recommended/preferred option threshold for all land use types of 3,000 metric tons CDE per year (SCAQMD, "Proposed Tier 3 Quantitative Thresholds – Option 1", September 2010).

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

The project's proposed construction activities, energy use, daily operational activities, and mobile sources (traffic) would generate GHG emissions. CalEEMod was used to calculate emissions resulting from project construction and long-term operation. Project-related construction emissions are confined to a relatively short period of time in relation to the overall life of the proposed project. Therefore, construction-related GHG emissions were amortized over a 30-year period to determine the annual construction-related GHG emissions over the life of the project. Additionally, the GHG emissions generated by the existing church are shown and subtracted from the total generated by the proposed project. As shown in Table 4, the project would reduce CDE emissions by 40 metric tons per year. This is less than the recommended SCAQMD threshold of 3,000 metric tons per year. This impact would be less than significant. Further analysis of this issue in an EIR is not warranted.

Table 4
Estimated Emissions of Greenhouse Gases

Emission Source	Annual Emissions (metric tons of CDE)[3]
Construction (amortized over 30 years)	14.9
Operational and Mobile	761
Total	**776**
GHG Emissions from Existing On-Site Buildings	*816*
Proposed Project minus Existing	**(40)**
SCAQMD Threshold	**3,000**
Threshold Exceeded?	**No**

() denotes a negative number
Sources: Emissions reported are from CalEEMod mitigated construction and operational data. See Appendix A for calculations.
[3] Carbon dioxide equivalent (CDE or CO_2E) is a quantity that describes, for a given mixture and amount of GHGs, the amount of CO_2 (usually in metric tons; million metric tons [megatonne] = $MMTCO_2E$ = terragram [Tg] CO_2 Eq; 1,000 MMT = gigatonne) that would have the same global warming potential (GWP) when measured over a specified timescale (generally, 100 years).

LESS THAN SIGNIFICANT IMPACT

b) Would the project conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

In April 7, 2016, the Southern California Association of Governments (SCAG) adopted the *2016-2040 Regional Transportation Plan/Sustainable Communities Strategy* (RTP/SCS). SCAG's RTP/SCS includes a commitment to reduce emissions from transportation sources by promoting compact and infill development. The proposed project would be infill development that replaces an existing on-site church. Additionally, the RTP/SCS contains goals to reduce air emissions by increasing walkability. The proposed project is located approximately 300 feet south of an intersection that has commercial uses on the northwest and southeast corners. Additionally, the project is within walking distance of Furgeson Elementary School and Hawaiian Elementary School and includes onsite recreational areas which would reduce the number of trips to and from the project site. The proposed project would also be required to comply with the energy efficiency measures contained in Title 24 of the California Administrative Code (the California Building Energy Efficiency Program). The proposed project would not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases. This impact would be less than significant. Further analysis of this issue in an EIR is not warranted.

LESS THAN SIGNIFICANT IMPACT

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
VIII. 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?	☐	☐	■	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	■	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within ¼ mile of an existing or proposed school?	☐	☐	■	☐
d) Be located on a site which is included on a list of hazardous material sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	■

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
VIII. Hazards and Hazardous Materials				
-- Would the project:				
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	■
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	■
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	■	☐
h) Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☐	■

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

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

The proposed project would involve the construction of 40 single family residences. Residential uses typically do not use or store large quantities of hazardous materials. Potentially hazardous materials such as fuels, lubricants, and solvents would be used during construction of the project. However, the transport, use, and storage of hazardous materials during the construction of the project would be conducted in accordance with all applicable state and federal laws, such as the Hazardous Materials Transportation Act, Resource Conservation and Recovery Act, the California Hazardous Material Management Act, and the California Code of Regulations, Title 22. Adherence to these requirements would reduce impacts to a less than significant level. Further analysis of this issue in an EIR is not warranted.

LESS THAN SIGNIFICANT IMPACT

c) Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within ¼ mile of an existing or proposed school?

The nearest existing schools are Hawaiian Elementary School and Venn W. Ferguson Elementary School, both located approximately 0.2 miles from the site. The project involves the construction of 40 single family residences. Residential uses do not typically emit or involve the handling of hazardous materials. Therefore, the project would not emit hazardous emissions or handle hazardous materials within one quarter mile of a school. This impact would be less than significant. Further analysis of this issue in an EIR is not warranted.

LESS THAN SIGNIFICANT IMPACT

d) Would the project be located on a site which is included on a list of hazardous material sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

The following databases compiled pursuant to Government Code Section 65962.5 were checked (July 25, 2016) for known hazardous materials contamination at the project site:

- Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) database;
- Geotracker search for leaking underground storage tanks (LUSTs); and
- The Department of Toxic Substances Control's Site Mitigation and Brownfields Database.

The project site was not listed in any of the above environmental databases nor are there any listed sites within 1,000 feet. Therefore, no impact would occur with respect to known hazardous material sites. Further analysis of this issue in an EIR is not warranted.

NO IMPACT

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

The project site is located approximately 2.2 miles northwest of Seal Beach Airport and 4.1 miles from Long Beach Airport. The proposed single family residences would be two stories tall and would not impact airport operations, alter air traffic patterns or in any way conflict with established Federal Aviation Administration (FAA) flight protection zones. No impact would occur. Further analysis of this issue in an EIR is not warranted.

NO IMPACT

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

There are no private airstrips located within 2 miles of the site. No impact would occur. Further analysis of this issue in an EIR is not warranted.

NO IMPACT

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

The proposed project does not involve the development of structures that could potentially impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. The project involves the construction of a private road. The road design would be required to be reviewed and approved by the Long Beach Fire Department LBFD) to ensure that sufficient emergency access is provided. This impact would be less than significant. Further analysis of this issue in an EIR is not warranted.

LESS THAN SIGNIFICANT IMPACT

h) Would the project expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

The city is an urbanized community and there are no wild lands in the project site vicinity. There would be no risk of exposing people or structures to a significant risk of loss, injury or death involving wild land fires. No impact would occur. Further analysis of this issue in an EIR is not warranted.

NO IMPACT

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
IX. Hydrology and Water Quality				
-- Would the project:				
a) Violate any water quality standards or waste discharge requirements?	☐	☐	■	☐
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering or the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	■	☐
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on-	☐	☐	■	☐

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
IX. Hydrology and Water Quality				
-- Would the project:				
or off-site?				
d) Substantially alter the existing drainage pattern of the site or area, including the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	☐	☐	■	☐
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	■	☐
f) Otherwise substantially degrade water quality?	☐	☐	■	☐
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	■
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	☐	☐	☐	■
i) Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☐	■
j) Result in inundation by seiche, tsunami, or mudflow?	☐	☐	■	☐

a) Would the project violate any water quality standards or waste discharge requirements?

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

f) Would the project otherwise substantially degrade water quality?

Temporary site preparation, grading, and paving activities associated with the project may result in soil erosion that could degrade water quality. However, on-site activities would be required to comply with the requirements of the Long Beach Municipal Code Chapter 18.95,

National Pollutant Discharge Elimination System (NPDES) and Standard Urban Stormwater Mitigation Plan (SUSMP) Regulations. Specifically, proposed demolition and construction activities would be required to comply with Long Beach Municipal Code Section 18.95.050, which requires construction plans to include construction and erosion and sediment control BMPs. Examples of required BMPs include sediment traps, stockpile management, and material delivery and storage. Compliance with these requirements would reduce potential impacts to water quality during construction of the proposed project.

The site contains a church, a parking lot, and a landscaped area. The project may incrementally increase the amount of impervious surface on the site. The project would comply with Section 18.74.040 of the Long Beach Municipal Code, which requires runoff to be infiltrated, captured and reused, evapotranspired, and/or treated on-site through storm water BMPs listed in the Low Impact Development (LID) Best Management Practices Manual. The project would also comply with the project SUSMP, which requires that post development peak runoff shall not exceed pre-development rates, the conservation of natural areas, minimization of stormwater pollutants through use of BMPs, protection of slopes and channels, appropriate signage at storm drain systems and proof of ongoing BMP maintenance. The SUSMP also sets standards for design of outside material storage areas, trash storage areas and structural or treatment control BMPs that would be followed by the proposed project. Because the project would be required to use BMPs such as retaining runoff onsite that would keep runoff at pre-development rates, it would not cause a negative effect on the Artesia-Norwalk Drainage Channel located along the western boundary of the site. Therefore, no long-term change to hydrology or water quality would occur. This impact would be less than significant. Further analysis of this issue in an EIR is not warranted.

LESS THAN SIGNIFICANT IMPACT

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

The proposed project would require the demolition of the existing church and the construction of 40 single family residences. The project would receive water service from the City of Long Beach Water Department. The project may incrementally increase the amount of impervious surface on the site. Current stormwater requirements require the stormwater to be contained onsite, which would aid recharge. Therefore, the project would not substantially decrease groundwater or interfere with groundwater recharge. This impact would be less than significant. Further analysis of this issue in an EIR is not warranted.

LESS THAN SIGNIFICANT IMPACT

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

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

The project would not alter the course of any stream or other drainage and would not increase the potential for flooding. The project site is located adjacent to the Artesia-Norwalk Drainage Channel. The project does not involve any changes to the site that would directly affect the channel. As discussed above, adherence to the city's urban runoff programs and implementation of design features to capture and treat stormwater runoff would reduce the quantity and level of pollutants within runoff leaving the site. This impact would be less than significant. Further analysis of this issue in an EIR is not warranted.

LESS THAN SIGNIFICANT IMPACT

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

h) Would the project place within a 100-year flood hazard area structures which would impede or redirect flood flows?

The project site is located in Zone X of the FEMA FIRM (Map # 06037C1820F; September 26, 2008). Zone X is characterized as having a 0.2% chance for an annual flood. The proposed project would not increase exposure of people, housing, or other property to risks associated with flooding within a 100-year flood hazard area. No impact would occur. Further analysis of this issue in an EIR is not warranted.

NO IMPACT

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

The project site is located away from any dams or levees. According to the Long Beach General Plan Safety Element, the proposed project site is not subject to flooding due to dam or levee failure nor would it increase exposure to risks associated with dam or levee failure. The site is located adjacent to a flood control channel. This channel has been cited for a peak flood and regulations limit discharge into that flood control channel. No impact would occur. Further analysis of this issue in an EIR is not warranted.

NO IMPACT

j) Would the project result in inundation by seiche, tsunami, or mudflow?

A tsunami is a series of traveling ocean waves of extremely long length generated primarily by vertical movement on a fault (earthquake) occurring along the ocean floor. As a tsunami reaches the shallow waters of the coast, the waves slow down and the water can pile up into a wall 30 feet or more in height. The effect can be amplified where a bay, harbor or lagoon funnels the wave as it moves inland. Large tsunamis have been known to rise over 100 feet. Even a tsunami

1 to 3 feet in height can be destructive, resulting in deaths and injuries, especially within port and harbor facilities.

The project site is located approximately 6 miles from the coastline. According to the Long Beach General Plan Safety Element, the project site is located in a low hazard area for tsunamis and seiches. This impact would be less than significant. Further analysis of this issue in an EIR is not warranted.

LESS THAN SIGNIFICANT IMPACT

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

a) Would the project physically divide an established community?

The proposed project consists of the demolition of an existing church and the construction of 40 single family residences. The site is bordered by a senior living facility to the north and residential uses to the west, south, and east. The project proposes one internal street to provide access to the residences. No project improvements would divide an established community are proposed. Therefore the proposed project would not physically divide an established community. No impact would occur. Further analysis of this issue in an EIR is not warranted.

NO IMPACT

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

The project site is designated Institutional and School District and is zoned Institutional. The project is not located in the coastal zone and is not subject to the Local Coastal Program. While the project does require a General plan Amendment and Zone Change, it would be consistent with the goals and policies of the General Plan. Development of the project would create high-quality housing within proximity of schools, recreation, opportunities, shopping, and employment. Upon approval of the General Plan Amendment and Zone Change, the project would be consistent with all elements of the General Plan and Zoning Ordinance. Impacts would be less than significant. Further analysis of this issue in an EIR is not warranted.

LESS THAN SIGNIFICANT IMPACT

c) Would the project conflict with an applicable habitat conservation plan or natural community conservation plan?

The project site is within an urban area characterized by residential and commercial development. The proposed project would replace an existing church on a fully developed site. No habitat conservation plan or natural communities conservation plan would be affected by project implementation. See Section IV(e) for further discussion. No impact would occur. Further analysis of this issue in an EIR is not warranted.

NO IMPACT

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
XI. 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?	☐	☐	☐	■

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

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

The project site and surrounding properties are part of an urbanized area with no current oil or gas extraction. No mineral resource activities would be altered or displaced by the proposed project. No impact would occur. Further analysis of this issue in an EIR is not warranted.

NO IMPACT

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
XII. Noise				
-- Would the project 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 above levels existing without the project?	☐	☐	■	☐
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	■	☐
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	■
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise?	☐	☐	☐	■

Noise is defined as unwanted sound that disturbs human activity. Environmental noise levels typically fluctuate over time, and different types of noise descriptors are used to account for this variability. Noise level measurements include intensity, frequency, and duration, as well as time of occurrence. Noise level (or volume) is generally measured in decibels (dB) using the A-weighted sound pressure level (dBA).

Some land uses are considered more sensitive to ambient noise levels than other uses due to the amount of noise exposure and the types of activities involved. Residences, motels, hotels, schools, libraries, churches, nursing homes, auditoriums, parks and outdoor recreation areas are more sensitive to noise than are commercial and industrial land uses.

The City uses the State Noise/Land Use Compatibility Standards, which suggests a desirable exterior noise exposure at 65 dBA Community Noise Equivalent Level (CNEL) for sensitive land uses such as residences. Less sensitive commercial and industrial uses may be compatible

with ambient noise levels up to 70 dBA. The City has adopted a Noise Ordinance (Long Beach Municipal Code Chapter 8.80) that sets exterior and interior noise standards.

Vibration is a unique form of noise. It is unique because its energy is carried through buildings, structures, and the ground, whereas noise is simply carried through the air. Thus, vibration is generally felt rather than heard. Some vibration effects can be caused by noise; e.g., the rattling of windows from passing trucks. This phenomenon is caused by the coupling of the acoustic energy at frequencies that are close to the resonant frequency of the material being vibrated. Typically, groundborne vibration generated by manmade activities attenuates rapidly as distance from the source of the vibration increases. The ground motion caused by vibration is measured as particle velocity in inches per second and is referenced as vibration decibels (VdB) in the U.S.

The vibration velocity level threshold of perception for humans is approximately 65 VdB. A vibration velocity of 75 VdB is the approximate dividing line between barely perceptible and distinctly perceptible levels for many people. Most perceptible indoor vibration is caused by sources within buildings such as operation of mechanical equipment, movement of people, or the slamming of doors. Typical outdoor sources of perceptible groundborne vibration are construction equipment, steel wheeled trains, and traffic on rough roads.

Vibration impacts would be significant if they exceed the following Federal Railroad Administration (FRA) thresholds:

- 65 VdB where low ambient vibration is essential for interior operations, such as hospitals and recording studios
- 72 VdB for residences and buildings where people normally sleep, including hotels
- 75 VdB for institutional land uses with primary daytime use, such as churches and schools
- 95 VdB for physical damage to extremely fragile historic buildings
- 100 VdB for physical damage to buildings

Construction-related vibration impacts would be less than significant for residential receptors if they are below the threshold of physical damage to buildings and occur during the City's normally permitted hours of construction, as described above, because these construction hours are during the daytime and would therefore not normally interfere with sleep.

a) Would the project result in 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?

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

Project construction would generate temporary noise levels that could be audible to sensitive receptors near the project site. Noise impacts are a function of the type of activity being undertaken and the distance to the receptor location. Nearby noise-sensitive land uses include residential units located directly south of the site, west of the site across the Artesia-Norwalk

Drainage Channel, and east of the site across Norwalk Boulevard. The residences closest to the site are those located to the south and are approximately 40 feet from the project fence line. During project construction, construction equipment would be active on the site, and construction workers and trucks would also drive to and from the site.

Table 5 shows typical noise levels associated with equipment used for the construction of the proposed project and associated demolition activities. Noise levels associated with these activities would temporarily affect the identified sensitive receptors near the project site. Noise from point sources generally decreases by about 6 dBA per doubling of distance for point source emitters. Table 5 illustrates the noise levels that would occur with construction of the proposed project at the nearby sensitive receptors. As indicated, the maximum noise level during construction activities at the exterior of the residences, which are located approximately 40 feet from the proposed construction site, would be approximately 91 dBA Leq. Such levels exceed ambient noise levels in the area and may cause temporary disturbance to nearby residents.

Table 5
Typical Construction Noise Levels

Equipment	Typical Level (dBA) 40 Feet from the Source	Typical Level (dBA) 100 Feet from the Source	Typical Level (dBA) 200 Feet from the Source	Typical Level (dBA) 300 Feet from the Source
Large Bulldozer	87	79	73	70
Paver	91	83	77	74
Jackhammer	90	82	76	73
Truck	90	82	76	73
Front End Loader	87	79	73	70

Source: Harris Miller, Miller & Hanson Inc. May 2006 for the Federal Transit Administration.

Pursuant to Section 8.80.202 of the City's Municipal Code, noise associated with construction activities is prohibited from exceeding the allowable exterior noise level for any zone during specific hours when noise-sensitive land uses are most sensitive to noise, as follows:

- Weekdays (including federal holidays): 7:00 PM to 7:00 AM
- Saturdays: 7:00 PM Fridays to 9:00 AM Saturdays, and after 6:00 PM Saturdays
- Sundays: Any time on Sundays

Construction noise impacts would be temporary, and construction contractors would be required to comply with Municipal Code requirements restricting hours of excessive noise generation. Therefore, the project would not result in exposure of persons to or generation of noise levels in excess of standards. This impact would be less than significant. Further analysis of this issue in an EIR is not warranted.

LESS THAN SIGNIFICANT IMPACT

b) Would the project result in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

Project construction activities are anticipated to result in some vibration that may be felt on properties in the immediate vicinity of the project site, as commonly occurs with construction projects. Table 6 identifies various vibration velocity levels for different types of construction equipment. Project construction would not involve the use of pile drivers, but could involve the use of bulldozer and jackhammers on the project site. Additionally, loaded trucks carrying construction materials would operate on the project site and some surrounding streets during construction.

Table 6
Vibration Source Levels for Construction Equipment

Equipment	Approximate VdB				
	40 Feet	75 Feet	100 Feet	200 Feet	300 Feet
Large Bulldozer	79	73	69	60	55
Loaded Trucks	77	71	68	59	54
Jackhammer	71	65	61	52	47
Small Bulldozer	49	43	40	31	26

Source: Federal Transit Administration, 2006.

Vibration levels would be as high as about 79 VdB at the closest residences. This exceeds the 72 VdB threshold for residences and buildings where people normally sleep, but below the 100 VdB threshold where vibration causes damage to buildings. The Long Beach Noise Ordinance prohibits construction outside daytime hours; therefore, construction vibration would not be significant at these receptors because activities would occur outside hours when people normally sleep. Therefore, the project would not result in excessive ground-borne vibration or noise. This impact would be less than significant. Further analysis of this issue in an EIR is not warranted.

LESS THAN SIGNIFICANT IMPACT

c) Would the project result in a substantial permanent increase in ambient noise levels above levels existing without the project?

Noise associated with operation of the proposed project may be periodically audible at adjacent uses. Noise events that are typical of residences include traffic, conversations, and children playing. On-site operations are expected to also involve noise associated with rooftop ventilation, heating systems, and trash hauling. These would be consistent with the noise associated with the existing residences adjacent to the project site. Noise measurements were taken on the project site on Tuesday, February 10, 2015 between 11:00 AM and 12:00 PM. The measurements were taken in two locations along Norwalk Boulevard and in one location in the northwestern corner of the site (see Figure 6). The measured noise levels on the site were 49.4 Leq, 69.1 Leq, and 70.2 Leq, respectively (see Appendix B for noise measurement results).

Permanent project-related changes in noise would be primarily due to increases in traffic volumes on nearby street segments. For traffic-related noise, impacts would be significant if project-generated traffic results in exposure of sensitive receptors to unacceptable noise levels. The FTA recommendations in the May 2006 Transit Noise and Vibration Impact Assessment were used to determine whether or not increases in roadway noise would be significant. The allowable noise exposure increase changes with increasing noise exposure, such that lower ambient noise levels have a higher allowable noise exposure increase. Table 7 shows the significance thresholds for increases in traffic related noise levels caused by the project.

Table 7
Significance of Changes in Operational Roadway Noise Exposure

Ldn or Leq in dBA	
Existing Noise Exposure	**Allowable Noise Exposure Increase**
45-50	7
50-55	5
55-60	3
60-65	2
65-75	1
75+	0

Source: FTA, May 2006

The project site currently contains a church that includes a preschool. A Trip Generation Study was completed by RK Engineering Group, January 2015 (see Appendix D). Table 8 shows the trip generation for the proposed project and the existing church. This shows that the project would decrease daily traffic to the site by an estimated 521 daily trips, with a reduction of 101 trips occurring during the AM peak hour and a reduction of 93 trips occurring during the PM peak hour. This would result in a decrease in traffic noise in the project area.

Table 8
Trip Generation

Use	AM Peak Hour	PM Peak Hour	Daily Total
Proposed			
Single Family Residences	31	40	381
Existing			
Church	10	10	161
Daycare Center	122	123	741
Total Existing	132	133	902
Net Change (Proposed – Existing)	(101)	(93)	(521)

() – indicates a negative number

Source: Trip Generation Study, RK Engineering Group, January 2015 (Appendix D)

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Noise Measurement Locations Figure 6

Residents of the project closest to Norwalk Boulevard would be exposed to outdoor noise levels of up to about 70 dBA according to the noise measurements taken on the site. In modern buildings of typical construction, interior noise levels are approximately 25 dBA lower than exterior noise levels with windows closed (FTA, May 2006). Thus, the maximum exterior noise level of 70 dBA at the site would be reduced to approximately 45 dBA inside the residences. This is within 45 dBA interior standard in the Long Beach Municipal Code.

Based on the above, development of the proposed project would not create a substantial permanent increase in ambient noise levels above levels existing without the project, would not expose people to noise levels in excess of threshold. This impact would be less than significant. Further analysis of this issue in an EIR is not warranted.

LESS THAN SIGNIFICANT IMPACT

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

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

The project site is located 2.2 miles north of the Seal Beach Airport and 4.1 miles northeast of the Long Beach Airport. The project is outside the planning areas identified in the Airport Land Use Plans for both the Seal Beach and Long Beach Airports. The project is not within an airport land use plan or within 2 miles of a public or private airport. Therefore, no airport noise conflicts would occur. No impact would occur. Further analysis of this issue in an EIR is not warranted.

NO IMPACT

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

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

The project consists of the construction of 40 single family residences. The California Department of Finance (DOF) states that the population of Long Beach in 2016 is 484,958. The Southern California Association of Governments (SCAG) estimates that the City's population will increase to 534,100 by 2035, an increase of 49,142.

The DOF estimates that there are approximately 2.84 persons per household in Long Beach (DOF, 2016). Based on this average, the 40-unit project would accommodate approximately 114 people. This would increase the population of Long Beach to 485,072. The population increase associated with the proposed project is within the population forecast for the City and the physical environmental impacts associated with this increased population growth have been addressed in the individual resources sections of this Initial Study. This impact would be less than significant. Further analysis of this issue in an EIR is not warranted.

LESS THAN SIGNIFICANT IMPACT

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

c) Would the project displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

There are no housing units on the project site or people residing on the project site in any form of temporary housing. Therefore, the project would not displace any existing housing units or people. No impact would occur. Further analysis of this issue in an EIR is not warranted.

NO IMPACT

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
XIV. Public Services				
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the 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:				

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
XIV. Public Services				
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the 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?	☐	☐	■	☐
ii) Police protection?	☐	☐	■	☐
iii) Schools?	☐	☐	■	☐
iv) Parks?	☐	☐	■	☐
v) Other public facilities?	☐	☐	■	☐

a (i) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the 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 fire protection?

Fire protection is provided by the LBFD and the Los Angeles County Fire Department (LACFD). The Fire Departments provide medical, paramedic, and other first aid rescue service. The LBFD and the LACFD would be required to sign off on project activities prior to implementation of the portions project that are within their respective jurisdictions.

The fire station closest to the site is Fire Station 5, located at 7575 Wardlow Road, approximately 1.2-miles southwest of the site. The site is within the existing service area of the LBFD and LACFD and onsite construction would comply with applicable Fire Code requirements. New fire protection facilities are not anticipated at this time. With the continued implementation of existing practices of the City, including compliance with the California Fire Code and the Uniform Building Code, the proposed project would not significantly affect community fire protection services and would not result in the need for construction of fire protection facilities. This impact would be less than significant. Further analysis of this issue in an EIR is not warranted.

LESS THAN SIGNIFICANT IMPACT

a (ii) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the 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 police protection?

Police protection is provided by the Long Beach Police Department (LBPD) and the Los Angeles County Sheriff's Department (LACSD). Because the project site is within the LBPD and LACSD service areas, it would not create the need for new or expanded police protection facilities. New police facilities are not anticipated at this time. This impact would be less than significant. Further analysis of this issue in an EIR is not warranted.

LESS THAN SIGNIFICANT IMPACT

a (iii) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the 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 schools?

The project site is served by the ABC Unified School District (ABCUSD). The project proposes to construct 40 single family residences. The schools that serve the project site are Furgeson Elementary, Fedde Middle, and Artesia High (ABCUSD website, 2015). Table 9 shows the current enrollment and capacity for these three schools, plus the number of students that would be generated by the proposed project. As shown in Table 9, the proposed project would not cause the schools to exceed their capacity.

Table 9
School Capacity and Student Generation

	Enrollment	Capacity	% of Capacity
Furgeson Elementary	410	720	57%
Fedde Middle	420	810	52%
Artesia High	1,549	1,950	79%
Total	**2,379**	**3,480**	**68%**
Students Generated by Project (0.7 students per unit)	28	-	-
Existing plus Project	**2,407**	**3,480**	**69%**

Source: State of California Office of Public School Construction website and personal communication with Robert Kay, 2015

Pursuant to Senate Bill 50 (Section 65995(h)), payment of mandatory impact fees to the affected school district would reduce school facility impact fees to a less than significant level under CEQA. Therefore, the project would not have a significant impact with respect to schools. This impact would be less than significant. Further analysis of this issue in an EIR is not warranted.

LESS THAN SIGNIFICANT IMPACT

a (iv) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the 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 parks?

Refer to Section XV, Recreation. This impact would be less than significant. Further analysis of this issue in an EIR is not warranted.

LESS THAN SIGNIFICANT IMPACT

a (v) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the 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 other public facilities?

Library services are provided by the Long Beach Public Library (LBPL). The closest library branch is El Dorado Branch located at 2900 Studebaker Road. The proposed project would directly increase the population by an estimated 113 residents. Residents may use existing library facilities; however, increased demand would be nominal. This impact would be less than significant. Further analysis of this issue in an EIR is not warranted.

Impacts to other public facilities (e.g., sewer, storm drains, and roadways) are discussed in Sections XVI (Transportation/Traffic) and Section XVII (Utilities and Public Services) of this Initial Study.

LESS THAN SIGNIFICANT IMPACT

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
XV. 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 which might have an adverse physical effect on the environment?	☐	☐	■	☐

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

b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

The City owns and operates approximately 3,100 acres of public land for recreation, including community parks, neighborhood parks, sports parks, open spaces, beaches, community centers, and marinas. The parks closest to the project site are the El Dorado Park, 0.4 miles west of the project site, and Stansbury Park, 0.4 miles southeast of the project site in Los Alamitos. The City's estimated 2016 population is 484,958 (California Department of Finance, 2016). Therefore, the ratio of public parks to residents in the city is 6.4 acres of parkland for every 1,000 residents, which is less than the City's goal to achieve and maintain a ratio of 8 acres of parkland per 1,000 residents, but greater than the standard ratio of 3 acres of parkland for every 1,000 residents used by the Quimby Act.

The proposed project would not directly affect any existing or planned parks, but the residential population increase associated with the proposed project would be expected to increase the use of neighborhood parks and other recreational facilities in the area. Development of the proposed project would add 40 new single family residences and an estimated 114 residents for a total City population of 485,072 residents (refer to Section XIII, Population and Housing). The parkland ratio would remain 6.4 acres per 1,000 residents after development of the proposed project. The project also includes over 25,000 sf of recreation space including walking paths, landscaped open space and a children's play area. Additionally, Section 18.18 of the LBMC requires all residential projects to pay a park fee prior to issuance of a certificate of occupancy. Therefore, the project would not measurably substantially alter citywide demand for parks. This impact would be less than significant. Further analysis of this issue in an EIR is not warranted.

LESS THAN SIGNIFICANT IMPACT

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
XVI. Transportation/Traffic				
-- Would the project:				
a) Conflict with an applicable plan, ordinance or policy establishing a measure of effectiveness for the performance of the circulation system, taking into account all modes of transportation, including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways, and freeways, pedestrian and bicycle paths, and mass transit?	■	☐	☐	☐
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for	■	☐	☐	☐

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
XVI. Transportation/Traffic				
-- Would the project:				
designated roads or highways?				
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	■
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible use (e.g., farm equipment)?	☐	☐	■	☐
e) Result in inadequate emergency access?	☐	☐	■	☐
f) Conflict with adopted policies, plans, or programs regarding public transit, bikeways, or pedestrian facilities, or otherwise substantially decrease the performance or safety of such facilities?	☐	☐	■	☐

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

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

The project would generate traffic during construction and operation. Construction of the project would generate temporary construction-related traffic such as deliveries of equipment and materials to the project site and construction worker traffic. The project would also generate approximately 381 average daily trips during its operation. Access to the site would be provided by North Norwalk Boulevard and all trips would begin and end of this street. Impacts would be potentially significant and will be analyzed further in an EIR.

POTENTIALLY SIGNIFICANT IMPACT

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

Seal Beach Airport is located approximately 2.2 miles southeast of the project site and the Long Beach Airport is located 4.1 miles southwest of the project site. The project consists of the

construction of 40 two-story single family residences. The project would not affect airport operations, alter air traffic patterns or in any way conflict with established FAA flight protection zones. No impact would occur. Further analysis of this issue in an EIR is not warranted.

NO IMPACT

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

e) Would the project result in inadequate emergency access?

Both construction traffic and operational traffic would access the site from Norwalk Boulevard. The proposed project would not introduce or encourage any incompatible land uses in the project site vicinity as it involves the construction of single family residences in a predominately residential area. Therefore, the project would not increase hazards and emergency access issues are not anticipated. This impact would be less than significant. Further analysis of this issue in an EIR is not warranted.

LESS THAN SIGNIFICANT IMPACT

f) Would the project conflict with adopted policies, plans, or programs regarding public transit, bikeways, or pedestrian facilities, or otherwise substantially decrease the performance or safety of such facilities?

The project is proposed on an infill site in an area already served by public transportation and bicycle programs. There are sidewalks on North Norwalk Boulevard adjacent to the site and the project proposes to include sidewalks in the internal road. North Norwalk Boulevard also has bike lanes on both sides of the road adjacent to the project site. The site is also located approximately 50-feet south of a bus stop that is served by bus lines 42, 102, and 104. The proposed project would not affect or conflict with adopted policies, plans, or programs regarding public transit, bikeways, or pedestrian facilities, or otherwise substantially decrease the performance or safety of such facilities. This impact would be less than significant. Further analysis of this issue in an EIR is not warranted.

LESS THAN SIGNIFICANT IMPACT

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
XVII. Utilities and Service Systems				
-- Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	■	☐

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
XVII. Utilities and Service Systems				
-- Would the project:				
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	■	☐
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	■	☐
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	■	☐
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	■	☐
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	■	☐
g) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	■	☐

a) Would the project exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

b) Would the project require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

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

Currently, a majority of the city's wastewater is delivered to the Joint Water Pollution Control Plant (JWPCP) of the Los Angeles County Sanitation Districts. The remaining portion of the city's wastewater is delivered to the Long Beach Water Reclamation Plant of the Sanitation

Districts of Los Angeles County. The JWPCP provides advanced primary and partial secondary treatment for 350 million gallons of wastewater per day (mgd). The Long Beach Water Reclamation Plant provides primary, secondary, and tertiary treatment for 25 mgd of wastewater.

Based on wastewater generation rates developed by the Sanitation Districts of Los Angeles County, the proposed project would generate an estimated 240 gallons of wastewater per unit per day, or approximately 9,600 gallons per day (gpd). Removal of the existing church would offset this increase by about 5,542 gpd (based on a rate of 200 gpd per 1,000 sf). Thus, the net increase in wastewater generation would be 4,058 gpd.

This increase constitutes about 0.001 percent of the available wastewater treatment capacity of 375 mgd. Thus, the project would not exceed wastewater treatment requirements, exceed the capacity of the City's wastewater systems, or require the construction of new wastewater treatment facilities. This impact would be less than significant. Further analysis of this issue in an EIR is not warranted.

LESS THAN SIGNIFICANT IMPACT

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

As discussed in Section IX, *Hydrology and Water Quality*, because the project site is already developed, the proposed project would not require the construction of substantial new storm water drainage facilities or expansion of existing facilities. This impact would be less than significant. Further analysis of this issue in an EIR is not warranted.

LESS THAN SIGNIFICANT IMPACT

d) Would the project have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?

The City of Long Beach's 2015 Urban Water Management Plan (UWMP) reports total citywide water demand for 2015 at 55,206 acre feet. This is projected to increase by 3,900 acre feet (or 7.1 percent) to 59,106 acre feet in 2040. Adequate water supplies are identified in the UWMP to meet future demand. Long Beach Board of Water Commissioners declared a Stage 1 Water Supply Shortage on November 20, 2014 for the City of Long Beach. This declaration put into place regulations that limit the use of water in the City including when landscaping can be watered, when and how residential swimming pools can be filled, limit the use of water by restaurants, among other requirements.

Water demand is estimated to be 120 percent of the wastewater generated by the project. Based on the project's estimated wastewater generation, project water demand is estimated at 11,520 gpd (0.04 acre feet per day or 12.9 acre feet per year), while the existing structures require 6,650 gpd (0.02 acre feet per day or 7.4 acre feet per year) for an increase of 4,870 gpd (0.01 acre feet per day or 5.5 acre feet per year). Therefore, project water demand would represent 0.0002 percent of the forecast citywide increase in water demand. Based on the project's incremental contribution to future demand, new sources of water supply would be not required to meet

project water needs. This impact would be less than significant. Further analysis of this issue in an EIR is not warranted.

LESS THAN SIGNIFICANT IMPACT

f) Would the project be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?

g) Would the project comply with federal, state, and local statutes and regulations related to solid waste?

Demolition materials, including asphalt and concrete, would be disposed of at the Puente Hills Landfill. Demolition waste would be disposed of at the Scholl Canyon Landfill, which is a Class III landfill with 3,400 tons per day of capacity (CalRecycle, 2015). Asphalt and concrete demolition debris would likely be recycled at Hanson Aggregates, a local construction recycling facility in Long Beach. Demolition materials would be a one-time deposit and the project would not be a continuous solid waste generator.

The proposed project involves demolition of the existing church and construction of 40 single family residences. CalRecycle maintains a list of waste generation rates that have been used in environmental documents (http://www.calrecycle.ca.gov/wastechar/wastegenrates/). The most recent information for residential projects indicates a waste generation rate of 12.23 pounds of waste per household per day. Based on this rate, the project would generate 489.2 pounds per day. The most recent information for pre-schools and churches indicates a waste generation rate of 0.007 pounds per sf per day. Therefore the church and pre-school would generate 75 pounds per day. The net increase in waste generated would be 414.2 pounds per day. This would be 0.006 percent of the available throughput capacity of the Scholl Canyon Landfill. Based on the disposal capacity of landfills serving the project site, this incremental increase in waste generation would not affect the availability of solid waste disposal capacity. This impact would be less than significant. Further analysis of this issue in an EIR is not warranted.

LESS THAN SIGNIFICANT IMPACT

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
XVIII. Mandatory Findings of Significance				
a) Does the project have the potential to substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self- sustaining levels, eliminate a plant or animal community, reduce the number or restrict	■	☐	☐	☐

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
XVIII. Mandatory Findings of Significance				
the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?				
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	■	☐	☐	☐
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	■	☐

a) Does the project have the potential to substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self- sustaining levels, eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

The project site contains trees that could be used by birds for nesting. These trees would be removed by the proposed project. Mitigation Measure BIO-1 would reduce these impacts to less than significant. The project would involve disturbance of soils on the site which could potentially disturb cultural or archaeological resources. Incorporation of Mitigation Measures CR-1 and CR-2 would reduce this potential impact to a less than significant level. Additionally, the project would involve the demolition of the existing church. The impacts of this demolition will be analyzed further in an EIR.

POTENTIALLY SIGNIFICANT IMPACT

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)?

As described in the discussion of environmental checklist Sections I through XVII, the project would have no impact, a less than significant impact, or a less than significant impact after mitigation with respect to all environmental issues except Cultural Resources and

Transportation and Traffic. Cumulative Impacts for these two resource areas will be analyzed in the EIR. The project would be consistent with the current General Plan land use designation for the site as well as the land use pattern in the project site vicinity. There are no other planned or pending projects within the immediate vicinity of the project site that would create cumulative impacts. Since impacts to Cultural Resources and Transportation and Traffic are potentially significant, cumulative impacts are also potentially significant and will be analyzed in the EIR.

POTENTIALLY SIGNIFICANT IMPACT

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

The proposed project has been found in this Initial Study to have less than significant impacts to human health. Although some construction noise and vibration may occur during daylight hours, overall impacts associated with operation of the project on the site would remain similar to current conditions. Therefore, the proposed project would not have an adverse effect on human beings. This impact would be less than significant. Further analysis of this issue in an EIR is not warranted.

LESS THAN SIGNIFICANT IMPACT

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