FIVE CORNER COMPREHENSIVE PEDESTRIAN PROJECT

INITIAL STUDY

Prepared for:

Prepared for:
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June 2019

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INITIAL STUDY

1. Project title:

Five Corner Comprehensive Pedestrian Project

2. Lead agency name and address:

City of Avalon
Planning Department
410 Avalon Canyon Road
Avalon, CA 90704

3. Contact person and phone number:

Amanda Cook
Planning Director
City of Avalon Planning Department
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4. Project location:

The project area comprises a segment of Tremont Street generally between Summer Avenue to the northwest and Clemente Avenue to the southeast and the cluster of intersections including Sumner Avenue, Country Club Drive and Avalon Canyon Road. This area is referred to as the "Five Corners" intersection. The area to be directly disturbed by the project is existing street right of way and stormwater infrastructure. The project location is shown in Figure 1 – Vicinity Map.

5. Project sponsor's name and address:

Mr. Bob Greenlaw
Public Works Director
410 Avalon Canyon Road
Avalon, CA 90704

6. General Plan designation:

Public

7. Zoning:

Public land zoned Resort Recreational

Figure 1— Vicinity Map

8. Description of project:

The proposed project is intended to address operational and safety deficiencies at the "Five Corner" intersection in the City of Avalon, located on Catalina Island, California. The project area comprises a segment of Tremont Street generally between Summer Avenue to the northwest and Clemente Avenue to the southeast and the cluster of intersections including Sumner Avenue, Country Club Drive and Avalon Canyon Road. This area is referred to as the "Five Corner" intersection and serves as a crossroads within the City of Avalon for residents and visitors traveling between the beach and downtown commercial area adjacent to the marina and the following:

- City Hall;
- Avalon Elementary and High School;
- City of Avalon Fire Department;
- Los Angeles County Lifeguard and County Fire Station;
- Catalina Island Medical Center;
- Botanical Gardens; and
- Residential workforce housing.

Under current conditions, the "Five Corner" intersection is awkwardly configured, does not meet current traffic design standards and lacks adequate and safe pedestrian and Americans with Disabilities Act (ADA) access. The intersections that comprise the study are located so close to one another that the location is perceived as one intersection by motorists and pedestrians. Thus, it essentially operates as a 5-legged all-way stop-controlled intersection with an elongated section that results in long diagonal movements by the majority of vehicles. In addition to vehicle use, there is significant pedestrian activity in this area. Pedestrians use a variety of routes through the intersection depending on the destination, level of vehicle activity and areas of traffic congestion. Some use crosswalks while others cross in non-designated pedestrian areas where traffic movement is uncontrolled. Approximately 55 percent of the intersection frontage has no sidewalks which contributes to confusion navigating Five Corner for both motorists and pedestrians.

The project scope includes the construction of two "dual mini-roundabout" intersections, construction of new sidewalk segments to close existing gaps and construction of six pedestrian crossings. Improvements would also extend southwest along Avalon Canyon Road generally to the south end of the City Hall and Fire Station complex and southeast along Tremont Street to just west of the Catalina Avenue intersection. The purpose of the mini roundabouts is to channelize and calm traffic and provide shorter, safer and more convenient pedestrian crossings. The design is expected to reduce user confusion and create a more comfortable pedestrian and bicycle environment (Figure 2 – Proposed Improvements). The roundabouts would be a low-profile design to channelize vehicles around them. Larger vehicles like fire trucks, school buses and delivery trucks could roll over the roundabout center.

Figure 2— Proposed Improvements

As shown in Figure 2, the two roundabouts would eliminate the stop-controlled intersections and facilitate continuous traffic circulation. To improve pedestrian safety, new sidewalk segments would be installed on the south side of the study area between the western leg of Tremont Street and Country Club Avenue, between Country Club Avenue and Avalon Canyon Road, along the east side of Avalon Canyon Road between Tremont Street and western terminus of the City Hall complex and along the north/west leg of Tremont Street. This would include a new site entrance apron at the intersection with Clarissa Avenue. This may be used for future access to City property south/east of City Hall. On-street parking would also be constructed along the north/east leg of Tremont Street and along Avalon Canyon Road. A new sidewalk would be constructed along the south/east side of Tremont Street between Catalina Avenue and Eucalyptus Avenue. A new bus stop would also be constructed in this segment. New sidewalk legs would be constructed between the crosswalk termini and the adjacent sidewalks and to the public right-of-way margin along Tremont Avenue between Sumner Avenue and Clemente Avenue. New crosswalks would also connect all new sidewalk segments. New hardscape and landscape improvements would be incorporated along the round-about perimeter to integrate the new facilities into the existing environment. A new 19-space paved parking lot would be constructed at the southwest corner of the Tremont Avenue and Avalon Canyon Road intersection. The parking stalls would be designed to accommodate low speed vehicles (i.e., autoette, golf cart). The stalls would not be designed for full size vehicles. A 6,700 square foot pad area will be graded to street level between the existing City Hall and Tremont Avenue. This pad area would be used for contractor staging during construction. All street improvements would occur within existing City of Avalon right-of-way and on City of Avalon fee-owned land in proximity to City Hall. No right-of-way would be acquired.

Removal of existing vegetation would be required along the study area perimeter to accommodate new construction. These species are comprised of various types of palm trees, eucalyptus trees, California pepper trees and ornamental shrubs. Where feasible, mature palm trees located in the disturbance area will be removed, placed in temporary containers and replanted as part of the landscaping improvements. No sensitive plants, animals or their habitat would be affected by the improvements. Above ground electrical utilities within the study area would be placed underground to more efficiently utilize the existing right-of-way.

Installation of the improvements along the west side of Tremont Street and Avalon Canyon Road would require removal of an 18-inch tall rock stem wall adjacent to the street, an elevated dirt fill area and stacked concrete wall located adjacent to an existing storm channel. The storm channel feature within the study area north of the Avalon Canyon Road/Tremont Street intersection and along Tremont Street is part of an extensive open-channel, concrete-lined (i.e., bottom and sides) drainage system that captures storm water runoff collected from the City's southwest residential development. Flows north of Avalon Canyon Road are conveyed in a shallow concrete rectangular conduit that crosses under the intersection of Avalon Canyon Road/Tremont Street. Flows transition to a soft bottom earthen channel that runs southeast paralleling Tremont Street on the west side discharging into a concrete channel system located south of the Tremont Street/Clemente Avenue intersection.

To improve the project's overall geometric and road surface design and provide surface treatment for storm flows, the existing concrete rectangular conduit that crosses under the intersection of Avalon Canyon Road/Tremont Street will be replaced with two 30-inch diameter storm drain conduits. The conduits will extend south of the intersection approximately 400 feet to the Tremont Street/Descanso Avenue intersection. The conduits will replace the existing soft bottom channel within this segment. South of the Tremont Street/Descanso Avenue intersection, flows will transition to the existing soft bottom channel. The channel segment will be improved by replacing the existing rock channel sides with concrete. The open channel segment would be approximately 350 lineal feet in length and allow natural infiltration of upstream flows. All flows would discharge into the main concrete lined regional channel system as occurs under existing conditions. Project street and related improvements are shown in Figure 3 - Project Design Features.

Construction staging areas used for equipment and materials storage are proposed in two disturbed areas. One would be approximately 2,800 square feet and generally located south of City Hall property. The other would be 7,200 square feet and located on property owned by the Island Company behind the City of Avalon Fire Department station located at 420 Avalon Canyon Road. The area would be temporarily leased to the City for use as a staging area. The entire area disturbed by the improvements would be approximately 1.28 acres. Construction of the proposed project is expected to begin in August 2019 and be completed in May 2020.

The Initial Study will be the primary document used to support approval of a Mitigated Negative Declaration (MND). The MND will demonstrate compliance with the California Environmental Quality Act (CEQA) required by the City of Avalon as part of the discretionary review process for the proposed project.

9. Surrounding Land Uses and Setting

The project site is approximately 1.28 acres in size and comprises a segment of Tremont Street generally between Summer Avenue to the northwest and Clemente Avenue to the southeast and the cluster of intersections including Sumner Avenue, Country Club Drive and Avalon Canyon Road. Land use in the area is primarily single and multifamily residential. The City Hall complex is located at the southwest corner of Tremont Street and Avalon Canyon Road. People's Park is located along the north side of Avalon Canyon Road adjacent to the project area.

10. Other public agencies whose approval is required:

Coastal Development Permit – City of Avalon
Electrical Infrastructure Relocation – Southern California Edison
Waste Discharge Requirements - Los Angeles Regional Water Quality Control Board

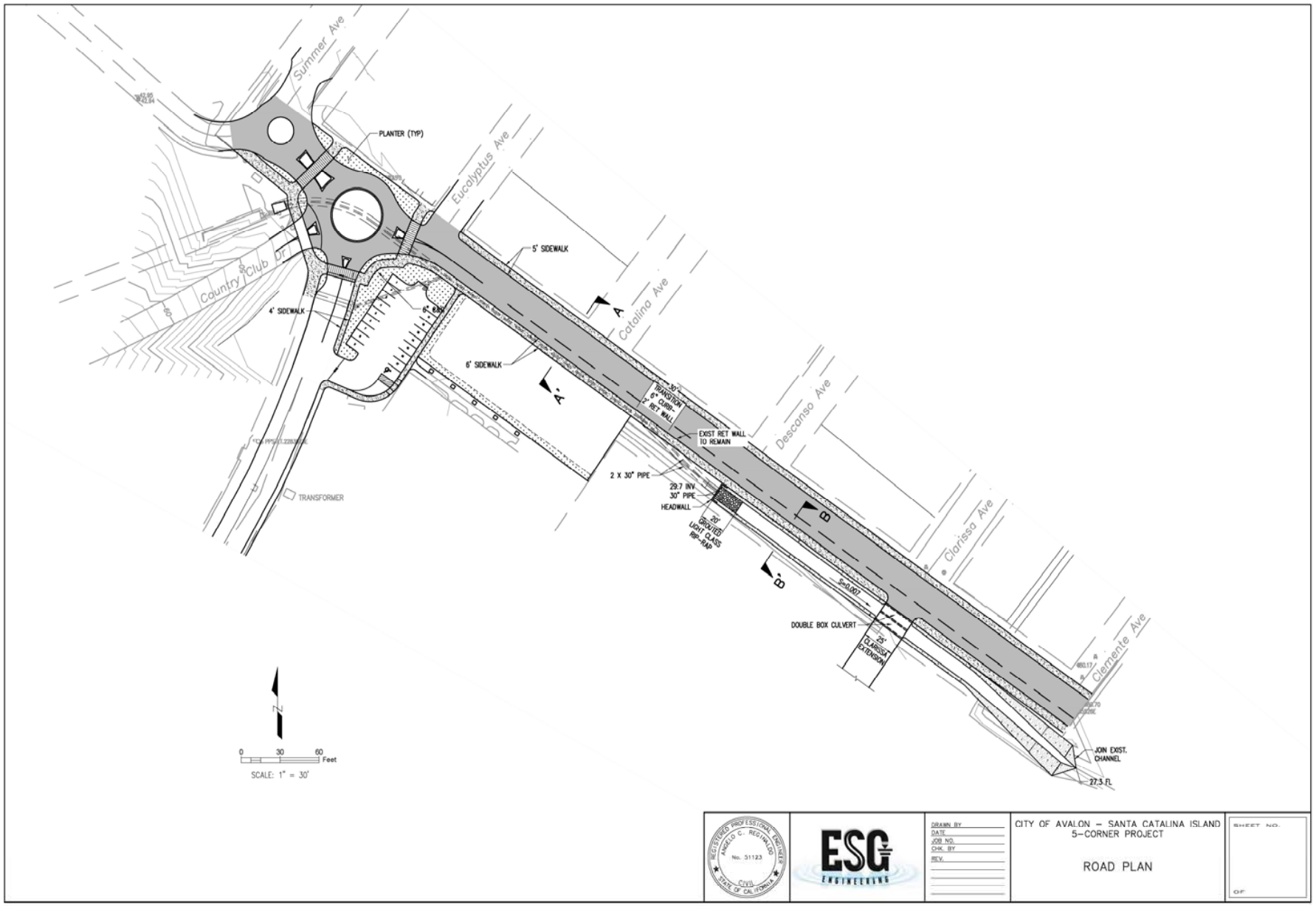

Figure 3— Project Design Features

11. Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, has consultation begun or is there a plan for consultation?

A Phase I Cultural Resources Report was prepared for the proposed project. As part of the process, a Sacred Lands File (SLF) search was conducted by the Native American Heritage Commission. Tribal representatives identified as part of the SLF search were noticed during preparation of the Phase I Cultural Resources Report. Robert Dorame of the Gabrielino Tongva Indians of California Tribal Council responded via telephone on December 3, 2018, stating that the Avalon area is highly sensitive for buried Native American archaeological resources and that a Native American monitor from the Gabrielino Tongva Indians of California Tribal Council should be retained to observe project related ground disturbance. Responses have been provided as part of the Phase I Cultural Resources Report. The City of Avalon will conduct Tribal consultation required per AB 52 as part of the Initial Study review process.

ENVIRONMENTAL FACTORS 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	☐ Energy
☒ Geology/Soils	☐ Greenhouse Gas Emissions	☐ Hazards & Hazardous Materials
☒ Hydrology/Water Quality	☐ Land Use/Planning	☐ Mineral Resources
☐ Noise	☐ Population/Housing	☐ Public Services
☐ Recreation	☐ Transportation	☒ Tribal Cultural Resources
☐ Utilities/Service Systems	☐ Wildfire	☒ 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

_____

Printed Name

ENVIRONMENTAL CHECKLIST

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
I. <u>AESTHETICS</u> – 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 public view of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☒	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

a) Implementation of the project would occur within the existing street right of way. No additional right of way would be acquired to construct the project. The site is within a currently developed area and surrounded by residential and commercial uses. The Avalon City Hall complex is located at the southwest corner of the Tremont Street/Avalon Canyon Road intersection. Views into the site are of an existing street network with primarily residences lining the streets. Views within the area are not designated scenic nor does the site contain any unique visual features.

The proposed project would construct street improvements as shown in Figure 2 and described in the project description. The project would remove all existing pavement and other curb/gutter improvements, install the new roundabouts, curb/gutter, sidewalks and make

necessary stormwater drainage and lighting improvements. The project would be designed per City of Avalon design standards and be visually consistent with existing residential and commercial development adjacent the street corridors. Thus, while views of the site would change, no designated scenic views or resources would be affected. Thus, impacts to scenic vistas would be **less than significant.**

b) There are two designated state scenic highways in Los Angeles County as defined by the California Department of Transportation. The nearest state-designated scenic highway to the study area is the 2.5-mile Topanga Canyon State Scenic Highway segment (State Route 27) near downtown Los Angeles. The site is currently developed with street and infrastructure improvements. There are no trees, historic structures or other visually prominent features on the site. **No impact** to these resources would occur as a result of project implementation.

c) Implementation of the project would occur within an existing street right of way. Some vegetation would have to be removed; however, as referenced, the mature palm trees would be retained and incorporated as part of the project landscape improvements. The project area is currently disturbed by exiting street and building improvements. While views would change, impacts would be **less than significant**.

d) The project would add new street, curb/gutter and sidewalk improvements which would be visible to users and those living adjacent to the site. Temporary outdoor lighting may be visible during operation of construction equipment; however, construction is expected to occur primarily during daylight hours. The improvements would occur consistent with standards provided in Section 9-7.724 of the Avalon Municipal Code. Impacts related to light and glare would be **less than significant.**

	Potentially Significant Impact	**Potentially Significant Unless Mitigation Incorporated**	**Less than Significant Impact**	**No Impact**
II. <u>AGRICULTURE AND FOREST RESOURCES</u> -- 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?	☐	☐	☐	☒

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
II. AGRICULTURE AND FOREST RESOURCES -- Would the project:				
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) The project site is a public street right of way. No Prime Farmland, Unique Farmland, or Farmland of Statewide Importance occurs on the project site and these resources would not be affected by project implementation. **No impact** would occur under this threshold.

b) The project site is not enrolled in a Williamson Act contract. The proposed project would not conflict with any zoning designations designed to promote agriculture. **No impact** would occur under this threshold**.**

c-e) Neither the site nor surrounding areas are used for timber production or commercial agriculture. The project would not conflict with any zoning designations designed to preserve timber or agricultural resources. **No impact** would occur under this threshold.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
III. AIR QUALITY -- Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☒
b) 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?	☐	☐	☒	☐
c) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☒	☐

The project site is located within the South Coast Air Basin, which is under the jurisdiction of the South Coast Air Quality Management District (SCAQMD). A significant adverse air quality impact may occur when a project individually or cumulatively interferes with progress toward the attainment of the ozone standard by generating emissions that equal or exceed the established long-term quantitative thresholds for pollutants or exceed a state or federal ambient air quality standard for any criteria pollutant. Table 1 shows the significance thresholds that have been recommended by the SCAQMD for projects within the South Coast Air Basin.

Localized Significance Thresholds. In addition to the thresholds described above, the SCAQMD has developed Localized Significance Thresholds (LSTs). 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 will 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. However, LSTs

Table 1
SCAQMD Air Quality Significance Thresholds

Mass Daily Thresholds		
Pollutant	**Construction**	**Operation**
Nitrogen Oxides (NO_x)	100 lbs/day	55 lbs/day
Reactive Organic Gases (ROG)	75 lbs/day	55 lbs/day
Particulate Matter 10 (PM_{10})	150 lbs/day	150 lbs/day
Particulate Matter 2.5 ($PM_{2.5}$)	55 lbs/day	55 lbs/day
SO_x	No standard	150 lbs/day
CO	550 lbs/day	550 lbs/day

[a] *Ambient air quality thresholds for criteria pollutants based on SCAQMD Rule 1303, unless otherwise stated.*
[b] *Ambient air quality threshold based on SCAQMD Rule 403.*

lbs/day = pounds per day

only apply to emissions within a fixed stationary location, including idling emissions during both project construction and operation. LSTs have been developed for NO_X, CO, PM_{10} and $PM_{2.5}$. LSTs are not applicable to mobile sources such as cars on a roadway (Final Localized Significance Threshold Methodology, SCAQMD, June 2003). As such, LSTs for operational emissions do not apply to the proposed project as all emissions would be mobile sources using the improved street segments. LSTs have been developed for emissions within areas up to five acres in size, with air pollutant modeling recommended for activity within larger areas.

Regional construction emissions associated with implementing the proposed project were calculated using the CalEEMOD Version 2016.3.2 (2016) software. Construction emissions modeling for site preparation, grading, building construction, paving, and architectural coating application is based on the overall scope of the proposed development and construction phasing. Construction is expected to begin mid-2019 and be completed by mid-2020. In addition to SCAQMD Rule 403 requirements for fugitive dust control, emissions modeling also accounts for the use of low-VOC paint for striping as required by SCAQMD.

a) A project may be inconsistent with the AQMP if it would generate population, housing, or employment growth exceeding forecasts used in the development of the AQMP. The 2016 AQMP, the most recent AQMP adopted by the SCAQMD, incorporates local city General Plans and the Southern California Association of Government's (SCAG) Regional Transportation Plan socioeconomic forecast projections of regional population, housing and employment growth.

The proposed project involves the construction of access and safety improvements at the Five Corner intersection. All pollutants would be limited to the construction phase. The project would not create housing nor increase housing demand to the extent that new housing would be needed. Further, the project would not increase the number of vehicles operating in the City of Avalon or otherwise increase the vehicle miles traveled. The proposed project is referenced in Section VI of the City of Avalon General Plan Update (June 2013) and the proposed scope is similar to what was envisioned at the time the General Plan Update was prepared. Thus, the project would be consistent with the AQMP. **No impact** would occur under this threshold.

b) Project construction would generate temporary air pollutant emissions. Both construction emissions and vehicle emissions associated with operation of the facility are quantified herein. The CalEEMod files are provided in Appendix A.

Construction Emissions

Construction vehicles and equipment operating on the graded site as well as grading/site preparation activities have the potential to generate fugitive dust (PM_{10} and $PM_{2.5}$) through the exposure of soil to wind erosion and dust entrainment. Project related construction activities would also emit ozone precursors (oxides of nitrogen (NO_X), reactive organic gases (ROG)) as well as carbon monoxide (CO). The majority of construction-related emissions would result from site preparation and the use of heavy-duty construction equipment. However, emissions would also be associated with constructing the improvements (including the application of striping) and paving the street surfaces.

The project would be required to comply with SCAQMD Rule 403, which identifies measures to reduce fugitive dust and is required to be implemented at all construction sites located within the South Coast Air Basin. Rule 403 (2) was included in CalEEMod for site preparation and grading phases of construction. Specifically, modeling assumed the site would be watered three times daily.

1. **Minimization of Disturbance.** Construction contractors shall minimize the area disturbed by clearing, grading, earth moving, or excavation operations to prevent excessive amounts of dust.
2. **Soil Treatment.** Construction contractors shall treat all graded and excavated material, exposed soil areas, and active portions of the construction site, including unpaved on-site roadways to minimize fugitive dust. Treatment shall include, but not necessarily be limited to, periodic watering, application of environmentally safe soil stabilization materials, and/or roll compaction as appropriate. Watering shall be done as often as necessary, and at least three times daily, preferably in the late morning and after work is done for the day.
3. **Soil Stabilization.** Construction contractors shall monitor all graded and/or excavated inactive areas of the construction site at least weekly for dust stabilization. Soil stabilization methods, such as water and roll compaction,

and environmentally safe dust control materials, shall be applied to portions of the construction site that are inactive for over four days. If no further grading or excavation operations are planned for the area, the area shall be seeded and watered until landscape growth is evident, or periodically treated with environmentally safe dust suppressants, to prevent excessive fugitive dust.

4. **No Grading During High Winds.** Construction contractors shall stop all clearing, grading, earth moving, and excavation operations during periods of high winds (20 miles per hour or greater, as measured continuously over a one-hour period).
5. **Street Sweeping.** Construction contractors shall sweep all on-site driveways and adjacent streets and roads at least once per day, preferably at the end of the day, if visible soil material is carried over to adjacent streets and roads.

Construction emissions modeling for demolition, site preparation, grading, improvement construction, paving and striping application is based on the overall scope of the proposed development and construction phasing which is expected to begin mid-2019 and extend through mid-2020. It is assumed for modeling purposes that the entire 1.28-acre site would be disturbed during construction. For dust control, it was assumed the maximum area would be watered three times daily and that street sweeping would occur per SCAQMD Rule 1186 and achieve a 25% reduction in fugitive dust emissions. In addition to SCAQMD Rule 403 requirements referenced above, emissions modeling also accounts for the use of low-VOC paint (100 g/L for traffic coatings) as required by SCAQMD Rule 1113. Table 2 summarizes the estimated maximum mitigated daily emissions of pollutants occurring during 2019 and 2020.

Table 2
Estimated Maximum Mitigated Daily Construction Emissions

Construction Phase	Maximum Emissions (lbs/day)					
	ROG	NO_x	CO	SOx	PM_{10}	$PM_{2.5}$
2019 Maximum lbs/day	2.4	22.7	15.5	0.02	3.6	2.1
2020 Maximum lbs/day	2.1	15.8	14.4	0.02	1.05	0.8
SCAQMD Regional Thresholds	*75*	*100*	*550*	*150*	*150*	*55*
Threshold Exceeded 2018	**No**	**No**	**No**	**No**	**No**	**No**
Threshold Exceeded 2019	**No**	**No**	**No**	**No**	**No**	**No**

As shown in Table 2, construction of the proposed project would not exceed the SCAQMD regional thresholds during either 2019 or 2020.

Localized Significance Thresholds. The SCAQMD has published a "Fact Sheet for Applying CalEEMod to Localized Significance Thresholds" (South Coast Air Quality Management District 2011). CalEEMod calculates construction emissions based on the number of equipment

hours and the maximum daily disturbance activity possible for each piece of equipment. Construction-related emissions reported by CalEEMod are compared to the localized significance threshold lookup tables. The CalEEMod output in Appendix A shows the equipment assumed for this analysis.

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 will 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. However, LSTs only apply to emissions within a fixed stationary location, including idling emissions during both project construction and operation. LSTs have been developed for NO_X, CO, PM_{10} and $PM_{2.5}$. LSTs are not applicable to mobile sources such as cars on a roadway (Final Localized Significance Threshold Methodology, SCAQMD, June 2003). As such, LSTs for operational emissions do not apply to the proposed development as all the emissions would be generated by vehicle operation.

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 lookup tables for project sites that measure one, two, or five acres. As referenced, a total of 1.28 acres is assumed to be disturbed daily during construction; thus, the associated look up table values for two acres were used to provide a conservative evaluation of potential impacts. The project site is located in Source Receptor Area 4 (SRA-4, South Coastal Los Angeles County). LSTs for construction related emissions in the SRA 4 at varying distances between the source and receiving property are shown in Table 3.

Table 3
SCAQMD LSTs for Construction

Pollutant	Allowable emissions as a function of receptor distance in meters from a two-acre site (lbs/day)				
	25	**50**	**100**	**200**	**500**
Gradual conversion of NO_x to NO_2	82	80	87	106	151
CO	842	1,158	1,611	2,869	8,253
PM_{10}	7	21	37	70	167
$PM_{2.5}$	3	5	10	26	93

Source: http://www.aqmd.gov/CEQA/handbook/LST/appC.pdf, October 2009.

The nearest sensitive receptors to the project site are adjacent to Tremont Street. To compare emissions to the LSTs, the 25-meter thresholds are used. As discussed, LSTs apply to on-site uses only and do not include off-site vehicle trips and emissions. LSTs are compared to

estimated project emissions in Table 3. As shown in Table 4, the LST's would not be exceeded during construction.

Table 4
Estimated Maximum Daily On-Site Construction Emissions and LSTs

On-Site Construction Emissions	NOx	CO	PM_{10}	$PM_{2.5}$
- Demolition	22.6	14.8	1.2	1.2
- Site Preparation	19.4	7.8	0.8	0.8
- Grading	16.0	6.6	2.9	1.8
- Improvement Construction[1]				
- 2019	15.9	13.4	0.9	0.8
- 2020	14.7	13.1	0.7	0.7
- Paving	8.4	8.8	0.4	0.4
- Architectural Coating	1.6	1.8	0.1	0.1
Local Significance Threshold – 25 meters (on-site only)[2]	**82**	**842**	**7**	**3**
Threshold Exceeded	No	No	No	No

Notes: All calculations were made using CalEEMod. See the Appendix A. Grading, Paving, Building Construction, and Architectural Coating totals include worker trips, construction vehicle emissions and fugitive dust.
Site Preparation and Grading phases incorporate anticipated emissions reductions required by SCAQMD Rule 403 to reduce fugitive dust.
[1] *Building construction phase would include 2019 and 2020.*
[2] LSTs are for a 2-acre disturbance area in SRA-4 within 25 meters of sensitive properties boundary.

Construction would not cause an adverse air quality impact per threshold (b) referenced above.

Operation Emissions

Table 5 summarizes emissions associated with operation of the proposed project. Emissions would be negligible and related to evaporative emissions from the asphalt restriping over the life of the project. The project would improve the operation of traffic in the area but is not anticipated to generate vehicle trips or otherwise increase vehicle emissions. As shown in Table 5, the net change in emissions would not exceed the SCAQMD thresholds for the criteria pollutant evaluated.

Therefore, the project's regional air quality impacts (including impacts related to criteria pollutants, sensitive receptors and violations of air quality standards) would be **less than significant.**

c) The nearest sensitive receptor to the project site are the residences located adjacent to Tremont Street and Avalon Canyon Road. As shown above, neither total construction emissions nor operation emissions would exceed the SCAQMD thresholds. In addition to quantifying emissions, SCAQMD recommends performing a local CO hotspot analysis if an intersection meets one of the following criteria: 1) the intersection is at Level of Service (LOS) D or worse and where the project increases the volume to capacity ratio by 2 percent, or 2) the project decreases LOS at an intersection to D or worse. A CO hotspot is a localized concentration of CO that is above the state or national 1-hour or 8-hour CO ambient air standards. Localized CO "hotspots" can occur at intersections with heavy peak hour traffic. Specifically, hotspots can be created at intersections where traffic levels are sufficiently high such that the local CO

concentration exceeds the federal AAQS of 35.0 parts per million (ppm) or the state AAQS of 20.0 ppm. As referenced in Section XVI, *Transportation/Traffic*, the project is intended to improve traffic flow and pedestrian/bicycle safety. It is not expected to generate new vehicle trips. Operation of the intersections would improve with installation of the improvements.

Table 5
Estimated Operational Emissions

	Estimated Emissions (lbs/day)					
	ROG	**NO_X**	**CO**	**SO_X**	**PM_{10}**	**$PM_{2.5}$**
Proposed Project						
Area	0.02	0.0	0.01	0.0	0.0	0.0
Energy	0.0	0.0	0.0	0.0	0.0	0.0
Mobile	0.0	0.0	0.0	0.0	0.0	0.0
Maximum lbs/day	**0.02**	**0.0**	**0.01**	**0.0**	**0.0**	**0.0**
SCAQMD Thresholds	**55**	**55**	**550**	**150**	**150**	**55**
Threshold Exceeded?	**No**	**No**	**No**	**No**	**No**	**No**

See Appendix A for CalEEMod version. 2016.3.2 computer model output for operational emissions. Summer emissions shown.
Note – totals may vary slightly due to rounding.

Thus, pollutants generated by project improvements would be negligible. The project would not contribute to traffic conditions that would create a CO hotspot with adverse health risks. Therefore, impacts would be **less than significant.**

d) The proposed project would generate odors from construction (i.e., diesel exhaust, asphalt). These odors would be limited to periods of time when there is active construction. The project does not involve construction of an industrial or agricultural processing facility that are typically associated with odors. Construction odors would be temporary. As referenced, construction emissions would not exceed SCAQMD impact thresholds; thus, short-term odors are not expected to be significant or adversely affect a substantial number of people. During operation, the facility would not generate new odors in excess of baseline conditions. Odors impacts would be **less than significant.**

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
IV. <u>BIOLOGICAL RESOURCES</u> -- 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 Game or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☒	☐
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☒	☐
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☐	☒
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
IV. BIOLOGICAL RESOURCES -- Would the project:				
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?	☐	☐	☐	☒

The material presented herein is based on the *Biological Technical Report for the City of Avalon Five Corner Project*, prepared by ECORP Consulting, Inc., December 2018. The report is provided herein as Appendix B.

a) The project site is not located within the boundaries of a MSHCP, NCCP or other document addressing the preservation of species and their habitat. There are no listed occurring in the area that would be impacted by the project. Thus, no specific avoidance, minimization, and mitigation measures are required.

Migratory Birds

The Migratory Bird Treaty Act (MBTA) of 1918 (16 USC 703-711) is an international treaty that makes it unlawful to take, possess, buy, sell, purchase, or barter any migratory bird listed in 50 CFR Part 10, including feathers or other parts, nests, eggs, or products, except as allowed by implementing regulations (50 CFR 21). Sections 3503, 3503.5, and 3800 of the California Department of Fish and Wildlife Code prohibit the take, possession, or destruction of birds, their nests, or eggs. The MBTA requires that project-related disturbance at active nesting territories be reduced or eliminated during critical phases of the nesting cycle (February 1 through August 31). Disturbance that causes nest abandonment and/or loss of reproductive effort (e.g., killing or abandonment of eggs or young) or loss of habitat upon which the birds depend could be considered "take" and constitute a violation of the MBTA.

Migratory birds include common, sensitive and listed species. No active nests or birds displaying nesting behavior were observed during the site investigation. However, the trees and shrubs located within the project site and surrounding areas provide minimal foraging and nesting habitat for year-round and seasonal avian residents, as well as migrating songbirds that could occur in the area that area adapted to urban environments. Because potential habitat is present within the proposed area of potential effect and project construction may occur within the nesting

cycle, potentially significant impacts to migratory and other bird species may occur. No candidate, sensitive or special status species listed in local or regional plans, policies or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service are known to occur in the area. With implementation of Measure BIO-1, impact to migratory birds would be reduced to **less than significant**.

BIO-1 **Nesting Bird Surveys and Avoidance.** To avoid the destruction of active nests and to protect the reproductive success of birds protected by MBTA, nesting bird surveys shall be performed not more than 14 days prior to the scheduled construction in areas adjacent to trees suitable for nesting. In the event that active nests are discovered, a suitable buffer should be established around such active nests and no construction within the buffer allowed until a qualified biologist has determined that the nest is no longer active (e.g. the nestlings have fledged and are no longer reliant on the nest). No ground disturbing activities shall occur within this buffer until the qualified biologist has confirmed that breeding/nesting is completed and the young have fledged the nest. Survey results shall be presented in a letter report and submitted to the City of Avalon. Nesting bird surveys are not required for construction activities occurring between September 1 and January 31.

Critical Habitat

Under the federal Endangered Species Act, "Critical Habitat" is designated at the time of listing of a species or within one year of listing. Critical Habitat refers to specific areas within the geographical range of a species at the time it is listed that include the physical or biological features that are essential to the survival and eventual recovery of that species. Maintenance of these physical and biological features requires special management considerations or protection, regardless of whether individuals of the species are present or not. All federal agencies are required to consult with the United States Fish and Wildlife Service (USFWS) regarding activities they authorize, fund, or permit which may affect a federally listed species or its designated Critical Habitat. The purpose of the consultation is to ensure that projects will not jeopardize the continued existence of the listed species or adversely modify or destroy its designated Critical Habitat. The designation of Critical Habitat does not affect private landowners, unless a project they are proposing is on federal lands, uses federal funds, or requires federal authorization or permits (e.g., funding from the Federal Highways Administration or a CWA Permit from the Corps). If a there is a federal nexus, then the federal agency that is responsible for providing the funding or permit would consult with the USFWS.

The project site is not located within local, state or federally designated Critical Habitat. Therefore, the loss or adverse modification of Critical Habitat from site development will not occur and consultation with the USFWS will not be required for implementation of the proposed project. **No impact** to designated critical habitats would occur.

Sensitive Plant/Animal Species and Habitat

Special-status plants were evaluated for their potential to occur within the Proposed Project Construction Area and Staging Areas where impacts could occur. No special-status plant species have been previously recorded in the Proposed Project area and none were detected or determined to have potential to occur in the Proposed Project area. Special-status plants are presumed absent from the Proposed Project area due to the lack of suitable habitat and/or other conditions such as soil or elevation.

Special-status wildlife were evaluated for their potential to occur within a broader area which includes the Proposed Project Construction Area and Staging Areas and a buffer, where direct or indirect impacts could occur, and species could migrate into impact areas from. No special-status animal species have been previously recorded in these areas and they are presumed absent from the Proposed Project Construction Area and Staging Areas due to the lack of suitable habitat.

b and c) The project site is located within the Santa Catalina Island-Frontal San Pedro Channel Watershed, specifically in the Santa Catalina Island subwatershed area (Hydrologic Unit Code [HUC] # 180701070002). Storm channel features located along and parallel to Tremont Street are part of an extensive open-channel, concrete-lined (i.e., bottom and sides) drainage system that conveys stormwater runoff from northwest of Avalon Canyon Road southeast and drains to a concrete lined segment of Avalon Creek located southeast of Clemente Avenue. The channel segment along Tremont Street is not concrete lined for its full length but is part of the series of constructed improvements in the watershed to convey storm flows. Avalon Creek, a blue-line stream, and its associated tributaries have historically been maintained and continue to receive flow from natural areas in the watershed. The Pacific Ocean is located 0.3 miles northeast of the project site.

Under the Clean Water Rule (CWR), all waters and features identified as excluded are not considered and will not be ''waters of the United States,'' even if they otherwise fall within one of the categories identified as regulated within other sections of the rule. For example, a ditch that is excluded under CWR paragraph (b)(3)(i) or (b)(3)(ii) is not jurisdictional even when the ditch connects directly or through another water to a traditional navigable water, interstate water, or the territorial seas. The segment of the storm channel within the project area was excavated wholly in uplands, drains only developed uplands, has less than perennial flow; and thus, is excluded as "waters".

The Fish and Game code does not address jurisdiction over activities in or near man-made waterways. In practice, jurisdiction has been based on the value of those waterways to fish and wildlife. The channel segments within the proposed construction area are man-made and do not support fish, aquatic insects, or riparian vegetation. There are no riparian or aquatic resources in portions of the channel upslope that could serve as source material for habitat to develop in this downslope segment.

The stormwater conveyance system includes segments within the project area that are considered part of the municipal separate storm sewer system (MS4); and thus, regulated under National Pollution Discharge Elimination System (NPDES) permits and associated stormwater management programs (SWMPs). These features are also considered "waters of the state" as defined in Porter-Cologne Water Quality Control Act and State Water Code Section 13000 et seq., and a Report of Waste Discharge may be required for Waste Discharge Requirements (WDR) assignment by the Regional Water Quality Control Board.

There are no wetlands or waters of the United States located on the project site. There is no riparian vegetation/habitat associated with the presence of natural water features. As referenced, the northern 400 lineal feet of channel would be removed and replaced with two 30-inch conduits. The southern 350 lineal feet would be retained as a soft bottom channel segment; however, concrete trapezoidal sides would be constructed along the entire segment. The channel is not a wetland or water of the United States. It is; however, regulated under the Porter-Cologne Act as a water of the state. Impacts to this feature may be subject to provisions of a WDR issued by the Regional Water Quality Control Board. With issuance of a WDR, the Regional Board would provide specific measures to implement during construction, including on- and off-site mitigation, required to ensure that impacts to state waters would be minimized during and post-construction. Thus, impacts to waters of the State would be **less than significant.**

d) Habitat linkages provide connections between larger habitat areas that are separated by development. Wildlife corridors are similar to linkages but provide specific opportunities for animals to disperse or migrate between areas. A corridor can be defined as a linear landscape feature of sufficient width to allow animal movement between two comparatively undisturbed habitat fragments. Adequate cover is essential for a corridor to function as a wildlife movement area. It is possible for a habitat corridor to be adequate for one species yet still inadequate for others. Wildlife corridors are features that allow for the dispersal, seasonal migration, breeding, and foraging of a variety of wildlife species. Additionally, open space can provide a buffer against both human disturbance and natural fluctuations in resources.

The project site has not been identified as a wildlife corridor or linkage. The proposed development will be confined to existing areas that have been heavily disturbed by existing roadway improvements and surrounded by development. The project site is isolated from regional wildlife corridors and linkages, and there are no riparian corridors, creeks, or useful patches of stepping-stone habitat (natural areas) within or connecting the project site to any identified wildlife corridors or linkages. As a result, implementation of the proposed project will not disrupt or have any adverse effects on any migratory corridors or linkages in the surrounding area. **No impact** to wildlife movement corridors would occur with project implementation.

e-f) As referenced, non-native and ornamental trees suitable for nesting occur in proximity to the project site. Thus, the project would be subject to compliance with the Migratory Bird Treaty Act. Nesting bird surveys would be required prior to removal of on-site trees if removal would occur during the nesting season (Mitigation Measure BIO-1). The project site was evaluated for the presence/absence of species and/or their habitat covered under a MSHCP/NCCP. No

conservation documents are applicable to the project area. No threatened, endangered or sensitive species or their habitat occurs on-site as described above. **No impact** would occur under this threshold.

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

The following information is based in part on the results of a *Phase I Cultural Resource Assessment for the Five Corner Intersection Improvement Project*, City of Avalon, December 2018, prepared by Birdseye Planning Group (BPG) and included herein as Appendix C.

a) As part of the Phase I Cultural Resource Assessment, BPG requested a search of cultural resource records housed at the California Historical Resources Information System (CHRIS), South Central Coastal Information Center (SCCIC) located at California State University, Fullerton (Appendix A of Appendix C). The search was conducted on November 13, 2018, to identify all previous cultural resources work and previously recorded cultural resources within a one-mile radius of the project site (Appendix A). The CHRIS search included a review of the National Register of Historic Places (NRHP), the California Register of Historical Resources (CRHR), the California Points of Historical Interest list, the California Historical Landmarks list, the Archaeological Determinations of Eligibility list, and the California State Historic Resources Inventory list. The records search also included a review of all available historic USGS 7.5-, 15-, and 30-minute quadrangle maps.

The SCCIC records search identified 22 cultural resources studies that were conducted within a one-mile radius of the project site. One of these studies (LA-04247) included the very southern edge of the project site, including the southern terminus of the road improvement as well as one staging area.

Eleven (11) cultural resources were recorded within one mile of the project site, one of which (P-19-004747; historic period refuse deposit) was identified within the project site and another (P-19-002678; historic period rock wall) was identified adjacent to the project site.

Resource P-19-002678 (CA-LAN-002678H) are the Avalon Golf Course stone retaining walls. They were recorded by Maki and Carbone (Conejo Archaeological Consultants) in 1998 but not evaluated for California Register of Historic Resources (CRHR) or National Register of Historic Properties (NRHP) eligibility. It was noted that the stone walls were constructed circa 1920s-1930s and are not reinforced and partially collapsed. The walls are near or adjacent to the southernmost project area but would not be impacted by the proposed project. The staging area is an active equipment storage yard and the proposed project uses would not impact the retaining walls.

Resource P-19-4747 (CA-LAN-004747H) is a thin subsurface historic refuse deposit recorded by Newcomb (SWCA; 2016) within Tremont Avenue during trenching for a utility project. Newcomb noted that the refuse appeared to be from multiple instances of trash dumping during the twentieth century and within the alluvial sands of a former creek bed. As such, this thin smear of artifacts is likely a secondary deposition lacking context; and therefore, not eligible for CRHR or NRHP listing due to lack of data potential and integrity. **No impact** to historic resources would occur with construction and operation of the proposed project.

b) As part of the Phase I Cultural Resources Assessment methodology, BPG requested a review of the Sacred Lands File (SLF) by the Native American Heritage Commission (NAHC) on October 10, 2018. The NAHC responded on October 29, 2018, stating that the SLF search was positive; the project vicinity is sensitive for Native American cultural resources and recommended that six Native Americans Tribes be contacted for further input. BPG prepared and mailed letters dated November 3, 2018, to the six Native American contacts describing the project and asking if they had knowledge regarding cultural resources of Native American origin within or near the project site.

Robert Dorame of the Gabrielino Tongva Indians of California Tribal Council responded via telephone on December 3, 2018, stating that the Avalon area is highly sensitive for buried Native American archaeological resources and he is working on the repatriation of Native American human remains from a project in Avalon. Mr. Dorame additionally stated that he is a direct lineal descendant and that a Native American monitor from the Gabrielino Tongva Indians of California Tribal Council should be retained to observe project related ground disturbance. He said he cannot overstate the sensitivity of the Avalon area for Native American resources and that the island is important to his people (full record of conversation in Appendix B of Appendix C). As of December 18, 2018, BPG has received no additional responses to the letters.

BPG archaeologist Kevin Hunt conducted a pedestrian survey of the project site on November 27, 2018. Mr. Hunt surveyed the project site using transects spaced 5 to 10 meters apart and generally oriented northwest-southeast along Tremont Avenue and within the staging areas,

and north-south along Avalon Canyon Road. The entire project site was surveyed, included the channel alignment and tree row. Mr. Hunt examined all exposed ground surface for artifacts (e.g., flaked stone tools and tool-manufacture debris, ground stone tools, ceramic sherds, fire-affected rock), ecofacts (marine shell, bone), soil discoloration that could indicate the presence of a cultural midden, soil depressions, and features indicative of the former presence of structures or buildings (e.g., standing exterior walls, postholes, foundations) or historic debris (e.g., metal, glass, ceramic sherds, cut bone). Ground disturbances such as cut banks and drainages were visually inspected. Photographs documenting the project site and survey are maintained at BPG's Vista, California, office.

The project site is nearly entirely paved, except for the staging areas and strip of trees between Tremont Avenue and the adjacent storm channel. The survey was negative; that is, no cultural (i.e., archaeological, historic built, or tribal cultural) resources were identified within the project site. The two-to-three course stone retaining wall on the southwest margin of Tremont Avenue is historic in age (mid-twentieth century); however, it is typical of retaining wall construction found within Avalon, is not associated with an important event or person, and is not considered a potential historical resource by the City of Avalon Planning Department. The archaeological sensitivity of the project site remains moderate to high based on the recorded resource within the project site (P19-004747) and the presence of both prehistoric and historic archaeological resources within the one-mile records search radius. Therefore, a mitigation-monitoring program is recommended during project implementation. This monitoring program should include archaeological and Native American monitoring. Measures to minimize or avoid significant impacts to cultural resources are stated below. With the implementation of mitigation measures CR-1, CR-2 and CR-3, impacts to cultural resources would be **less than significant.**

CR -1: There is a moderate probability that significant prehistoric and/or historic age cultural resources will be unearthed during development within the project area. To minimize or avoid impacts to significant prehistoric and/or historic age cultural resources, a mitigation-monitoring program shall be implemented within the project boundaries during all ground-disturbing activities including archaeological and Native American monitoring. A Native American monitor from the Gabrielino Tongva Indians of California Tribal Council shall be retained to observe project-related ground disturbance.

Full-time monitoring shall continue until the project archaeologist and/or project Native American monitor determines that the overall sensitivity of the project area has been reduced from moderate to low as a result of mitigation-monitoring. Should the monitor(s) determine that there are no cultural resources within the impacted areas or should the sensitivity be reduced to low during monitoring, all monitoring should cease.

CR-2: Should any cultural resources be discovered, the monitor(s) are authorized to temporarily halt all grading in the immediate vicinity of the discovery while the resource is recorded onto appropriate DPR 523 Forms and evaluated for significance. If the resource is determined to be significant, the monitor shall make recommendations to the Lead Agency on the measures that shall be implemented to protect the discovered resources, including but not limited to, avoidance, excavation, and further evaluation of the finds in accordance with CEQA.

No further grading shall occur in the area of the discovery until the Lead Agency approves the measures to protect these resources. Any archaeological artifacts recovered as a result of mitigation, excluding items covered by the provisions of applicable Treatment Plans or Agreements, shall be donated to a qualified scientific institution approved by the Lead Agency where they would be afforded long-term preservation to allow future scientific study.

CR-3: The results of the mitigation-monitoring program shall be incorporated into a final report and submitted to the Lead Agency for review and approval. Upon approval by the Lead Agency, the final report, including any associated DPR 523 Forms, shall be submitted to the South Central Coastal Information Center (SCCIC).

With implementation of mitigation measures, CR-1, CR-2 and CR-3, potential impacts to cultural resources would be reduced to **less than significant**.

c) The potential for encountering human remains at the project site is low. No known burial sites have been identified on the site or in the vicinity. In addition, California Health and Safety Code §7050.5, Public Resources Code § 5097.98, and § 15064.5 of the California Code of Regulations (CEQA Guidelines) mandate procedures to be followed, including that, if human remains are encountered during excavation, all work must halt, and the County Coroner must be notified (Section 7050.5 of the California Health and Safety Code). The coroner will determine whether the remains are of forensic interest. If the coroner, with the aid of the supervising archaeologist, determines that the remains are prehistoric, the coroner will contact the Native American Heritage Commission (NAHC). The NAHC will be responsible for designating the most likely descendant (MLD) responsible for the ultimate disposition of the remains, as required by Section 5097.98 of the Public Resources Code. The MLD should make his/her recommendations within 48 hours of their notification by the NAHC. This recommendation may include A) the non-destructive removal and analysis of human remains and items associated with Native American human remains; (B) preservation of Native American human remains and associated items in place; (C) relinquishment of Native American human remains and associated items to the descendants for treatment; or (D) other culturally appropriate treatment. Section 7052 of the Health & Safety Code also states that disturbance of

Native American cemeteries is a felony. With adherence to these existing regulations, impacts would be **less than significant**.

VI. ENERGY – would the project:

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

a) Project construction would utilize common methods for site preparation, grading and installation of all infrastructure. Techniques are not expected to be wasteful or otherwise result in inefficient use of fuels or other sources of energy. Post-construction, the project would not consume any energy. A **less than significant** impact would under this threshold.

b) The project would construct pedestrian improvements as identified in the project description. The project would utilize heavy equipment that meets CARB registration requirements for energy efficiency and emission reduction. The City of Avalon does not have an approved Climate Action Plan; thus, consistency with plans/policies focuses on project consistency with the 3,000-metric ton annual emission threshold provided by South Coast Air Quality Management District (SCAQMD) and referenced in Section VIII, *Greenhouse Gas*, below. The project would generate construction emissions; however, these emissions would not exceed the 3,000 metric ton threshold. The project would not conflict with a state or local plan regarding renewable energy or energy efficiency. **No impact** would under this threshold.

	Potentially Significant Impact	**Potentially Significant Unless Mitigation Incorporated**	**Less than Significant Impact**	**No Impact**
VII. <u>GEOLOGY AND SOILS</u> – Would the project:				
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
VII. GEOLOGY AND SOILS – Would the project:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?	☐	☐	☒	☐
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 direct or indirect 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?	☐	☐	☐	☒
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐

a (i-ii) Avalon is not located within an Alquist-Priolo Fault-Rupture Hazard Zone; and therefore, is not subject to surface rupture. However, six active and potentially active faults are located within 25 miles of Avalon. An active fault is defined as a fault showing evidence of surface displacement during Holocene time (within the last approximately 11,700 years). A potentially active fault is defined as a fault showing evidence of surface displacement during Quaternary time (within the last approximately 2.6 million years). Active faults include the Palos Verdes, Cabrillo and San Diego Trough. Potentially active faults include San Pedro Basin, Newport Inglewood and San Clemente.

The Cabrillo Fault located on the Palos Verde Peninsula approximately 20 miles northeast of Avalon is the closest active fault to the study area. Although no known faults are located within Avalon, the fault systems referenced above could cause property damage, possibly resulting in injury and loss of life in the event of a major earthquake due to ground motion. The level of impact resulting from any seismic activity will depend on factors such as distance from epicenter, earthquake magnitude, soil characteristics and subsurface geology.

During the life of the proposed improvements, the property will likely experience moderate to occasionally high ground shaking from known faults, as well as background shaking from other seismically active areas of the Southern California region. However, site preparation and construction of the improvements consistent with geotechnical recommendations and current California Building Code (CBC) requirements would address seismic concerns and related structural impacts associated with ground shaking. Impacts would be **less than significant.**

a (iii) Liquefaction typically occurs within the upper 50 feet of the surface, when saturated, loose, fine- to medium-grained soils (sand and silt) are present. Earthquake shaking suddenly increases pressure in the water that fills the pores between soil grains, causing the soil to lose strength and behave as a liquid. When liquefaction occurs, the strength of the soil decreases, reducing the ability of the underlying soil to support foundations for buildings and other structures. The type of geologic process that created a soil deposit has a strong influence on its liquefaction susceptibility. Saturated soils that have been created by sedimentation in rivers and lakes can be very susceptible to liquefaction.

As referenced in the General Plan Update, groundwater in Avalon is typically at sea level and the liquefaction potential in the City of Avalon is considered low. The project is comprised of street and underground infrastructure improvements. To avoid instability associated with liquefaction, the improvements would be designed consistent with CBC requirements and related seismic standards. With the implementation of geotechnical design recommendations, impacts related to liquefaction would be **less than significant.**

a (iv) The project site is generally flat with a gradual slope to the southwest. There are two known landslide areas in Avalon. Neither are located in proximity to the project site. Slopes are located northwest of the site; however, this area is vegetated and/or developed. No evidence of landslide is located in this area. The improvements would not affect the toe of the slopes,

destabilize existing slopes or create steep slopes that could increase the potential for landslides. Impacts related to landslides would be **less than significant**.

b) As noted, the site is generally flat which limits erosion potential. The disturbance area is greater than one acre in size and the improvements would disturb more than one acre. Thus, the project would be subject to State Water Resources Control Board General Construction Permit during construction to minimize soil erosion. For additional information, see Section IX, *Hydrology and Water Quality*. With implementation of Best Management Practices (BMPs) specified in the Stormwater Pollution Prevention Plan (SWPPP) prepared for the project, soil erosion hazard impacts would be **less than significant.**

c, d) Land subsidence is defined as the sinking or settling of land to a lower level. Causes can include: (1) earth movements; (2) lowering of ground water level; (3) removal of underlying supporting materials by mining or solution of solids, either artificially or from natural causes; (4) compaction caused by wetting (hydro-compaction); (5) oxidation of organic matter in soils; or (6) added load on the land surface.

Per the General Plan Update, subsidence is usually localized and does not appear to present a threat to the City of Avalon. No evidence of subsidence is present in the study area and project improvements would replace the existing street segments with similar infrastructure. Site specific impacts related to subsidence would be **less than significant**.

e) The proposed project is comprised of access and street improvements. The improvements would not generate wastewater. No septic systems would be installed. **No impact** would occur under this threshold.

f) No specific paleontological sensitivity information is provided for the project site and no known paleontological resources occur in the area. However, resources could be discovered during excavation. Mitigation Measures PAL-1 and PAL-2 would require the City of Avalon to provide awareness training on potential paleontological resources to construction personnel by a qualified paleontologist and provide an appropriate course of action based on resources discovered. With the implementation of PAL-1 and PAL-2, impacts would be **less than significant** with respect to paleontological resources.

> **Mitigation Measure PAL-1:** Prior to the commencement of construction activities, the City of Avalon shall retain a qualified paleontologist to provide construction personnel with orientation and awareness training on potential paleontological resources. Such training shall include familiarization with the stop-work restrictions, noticing, and handling procedures, and ultimate disposition of ratifications.
>
> **Mitigation Measure PAL-2:** If paleontological resources are discovered during project implementation, the contractor shall stop all earth-moving activities within and around the immediate discovery area and the project proponent shall retain a qualified paleontologist to evaluate the significance of the finding and appropriate course of

action. The person who made the discovery shall contact the City of Avalon Planning Department so that they may coordinate an appropriate plan of action. If the find is determined by paleontologists to require further treatment, the area of discovery will be protected from disturbance while qualified paleontologists and appropriate officials, in consultation with a recognized museum repository (e.g., the San Diego Natural History Museum or the University of California Museum of Paleontology), determine an appropriate treatment plan.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
VIII. GREENHOUSE GAS EMISSIONS Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
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 referred to as 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). 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. 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 (Cal EPA, 2006).

Pursuant to the requirements of SB 97, the *CEQA Guidelines* were amended to include 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.

The majority of individual projects do not generate sufficient GHG emissions to create a project-specific impact through a direct influence to climate change; therefore, the issue of climate change typically involves an analysis of whether a project's contribution towards an impact is cumulatively considerable. "Cumulatively considerable" means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, other current projects, and probable future projects (CEQA Guidelines, Section 15355).

Potential GHG impacts are evaluated per the SCAQMD's recommended/preferred option threshold for all land use types of 3,000 metric tons CO_2E per year. GHG emissions associated with the project's construction period were estimated using the CalEEMod computer program. CalEEMod input parameters and output files are shown in Appendix A.

a) Construction activities would generate greenhouse gas (GHG) emissions associated with equipment operation. The project-related construction emissions would be generated over a two-year construction phase extending from mid-2019 through mid-2020. Site preparation and grading typically generate the greatest emission quantities because the use of heavy equipment is greatest during this phase of construction. Emissions associated with the construction period were estimated based on the projected maximum amount of equipment that would be used onsite at one time. Air districts such as the SCAQMD have recommended amortizing construction-related emissions over a 30-year period to calculate annual emissions. Construction of the project would generate approximately 150 metric tons of GHG emissions during construction. Amortized over 30 years, the project would generate 5 metric tons as shown in Table 6 below.

Table 6 also shows the operational GHG emissions associated with the proposed project. As referenced in Section II, *Air Quality*, air emissions associated with the operation of the project would be negligible. As discussed, the project would not increase vehicle trips, increase the length of any commute or otherwise contribute to increased vehicle miles traveled within the City of Avalon.

Table 6
Combined Annual Greenhouse Gas Emissions

Emission Source	Annual Emissions (CO_2E)
Construction	5 metric tons
Operational	
Energy	0.0 metric tons
Solid Waste	0.0 metric tons
Water	0.0 metric tons

Mobile	0.0 metric tons
Total	**5.0 metric tons**

See Appendix A for CalEEMod software program output

Cumulatively, the estimated emissions would not exceed the 3,000 MT CO2E; thus, GHG emissions would be **less than significant.**

b) The proposed project would entail construction and operation of access and safety improvements at the Five Corner intersection. As discussed, the project would not exceed the thresholds of significance established for the evaluation of individual projects for GHG emissions. With respect to consistency with plans or policies related to GHG emissions, the City of Avalon does not have an approved Climate Action Plan. Thus, consistency with plans/policies focuses on project consistency with the 3,000-metric ton annual emission threshold provided by SCAQMD and used by the City of Avalon to determine project specific GHG impacts. Impacts would be **less than significant**.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
IX. <u>HAZARDS AND HAZARDOUS MATERIALS</u> - 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	☐	☐	☐	☒

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
IX. HAZARDS AND HAZARDOUS MATERIALS - Would the project:				
Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?				
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☐	☒
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?	☐	☐	☐	☒

a-c) The proposed project would construct access and safety improvements at the Five Corner intersection. The only hazardous materials stored on-site would be fuel and other petroleum products (i.e., motor oil, hydraulic fluid, etc.) used in the construction equipment. The project would not contain fuel tanks or otherwise sell or store hazardous materials.

The Avalon K-12 School is located at 200 Falls Canyon Road approximately ¼ mile northwest of the project site. Construction of the proposed project would involve the use of fuel, lubricants, and chemicals that may be considered hazardous. This material would be used in heavy equipment and not stored on-site. Impacts related to accidental spills or other releases would be minimize or avoided by using mobile refueling and lubrication services. These services would utilize fueling pads and related methods to absorb any accidental spills during refueling or fluid/lubricant replacement. While the school would be approximately ¼ mile from the construction area, potential impacts related to hazardous materials used during construction would not be significant or adverse. No hazardous materials would be associated with operation of the proposed improvements. Based on these factors, a **less than significant** impact

would occur under these thresholds.

d) According to the Geotracker (State Water Board) and Envirostor (Department of Toxic and Substance Control) databases, no uses or activities that could have caused or contributed to a release of hazardous chemicals or materials on the property occur or have occurred on the site. There is no visible evidence of hazardous environmental conditions on the project site. **No impact** would occur under this threshold.

e) Avalon Airport is located 7 miles northwest of the project site. The proposed project is not located within the Avalon Airport land use boundary, within 2 miles of a public use airport in proximity to a private airstrip. **No impact** would occur.

f) The proposed project would require temporary lane closures during construction. The subject intersections are within the primary route of travel between the Avalon Fire Station and downtown Avalon and the marina/waterfront area. Thus, a Traffic Control Plan would be implemented as a condition of project approval to ensure a route of travel for emergency vehicles as well as other vehicles and pedestrians is maintained throughout construction. All closures would be coordinated per a traffic control plan to ensure emergency access through the project area is maintained. Post construction, the roundabouts will be mountable by fire trucks and other emergency response vehicles; thus, the project will not impact evacuation routes or otherwise impair evacuation during emergencies. A **less than significant** impact would occur under this threshold.

g) The project site is located in a developed commercial/residential area. The project site is located in a Very High Fire Hazard Severity Zone as designated by the California Department of Forestry and Fire Protection. (General Plan Update, 2013). The project entails the construction of access and safety improvements at the Five Corner intersection. No new structures or other improvements that could be damaged during a fire would be constructed. **No impact** would occur under this threshold.

	Potentially Significant Impact	**Potentially Significant Unless Mitigation Incorporated**	**Less than Significant Impact**	**No Impact**
X. <u>HYDROLOGY AND WATER QUALITY</u> – Would the project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☐	☐	☒	☐
b) Substantially decrease groundwater supplies or interfere substantially	☐	☐	☐	☒

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
X. <u>HYDROLOGY AND WATER QUALITY</u> – Would the project:				
with groundwater recharge such that the project may impede sustainable groundwater management of the basin?				
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or through the addition of impervious surveys, in a manner which would:				
i) result in substantial erosion or siltation on- or off-site?	☐	☐	☒	☐
ii) substantially increase the rate or amount of surface water runoff which would result in flooding on- or off-site?	☐	☐	☒	☐
iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff, or?	☐	☐	☒	☐
iv) Otherwise impede or redirect flood flows?	☐	☐	☐	☒
d) In flood hazard, tsunami or seiche risk release of pollutants due to project inundation?	☐	☐	☐	☒
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☒	☐	☐

a) The project site is currently improved with public streets. An existing storm channel is located along the west side of Tremont Street. This channel is a segment of a larger concrete lined system constructed to convey surface storm flows from Avalon Canyon Road and a concrete channel that serves the area upslope along Country Club Lane and Banning Drive northwest of the study area. The general drainage pattern would not be affected by construction; however, improvements would widen the street in some areas which would increase impervious surfaces (i.e., asphalt and concrete) and landscape areas. As referenced, the northern 400 lineal feet of the open channel located along the west side of Tremont Street would be removed and replaced with two 30" conduits to convey storm flows. The lower 350 lineal feet would remain an open channel; however, existing stacked stone walls would be replaced by trapezoidal concrete walls.

The project would be a Category 2 project as defined in the *City of Avalon Post Construction Stormwater Guidance* document; and thus, would be required to implement stormwater control features consistent with City guidelines. The system proposed would be designed to capture and infiltrate the 100-year, 24-hour storm event flows. While the project would modify on-site drainage through construction of new stormwater treatment and conveyance features, it would not alter the course of an existing stream or river that would result in on- or off-site erosion or siltation. Construction of the open channel improvements would facilitate infiltration and provide treatment. This would avoid flooding on- or off-site. The project would not substantially degrade water quality or otherwise violate discharge standards. Impacts would be **less than significant**.

b) The project would provide pedestrian and related improvements at the Five Corner intersection as defined in the project description. Southern California Edison provides water service to Catalina Island. The City of Avalon is located within the East End water distribution system. The primary source of fresh water comes from the aquifer connected to the Middle Ranch Reservoir. The reservoir has a capacity of about 1,149-acre feet. Fresh ground water is drawn from the aquifer via three groundwater wells in Middle Ranch. The water is aerated and chlorinated and then pumped to Wrigley Reservoir for distribution to the city of Avalon and other users within the island's East End. The water supply is not dependent on groundwater pumped from the project area nor would improvements affect any groundwater recharge that may occur in the project area. **No impact** to groundwater resources would occur as a result of the project.

c)(i) As referenced, the project would be a Category 2 project as defined in the *City of Avalon Post Construction Stormwater Guidance* document; and thus, would be required to implement stormwater control features consistent with City guidelines. The system proposed would be designed to capture and infiltrate the 100-year, 24-hour storm event flows. While the project would modify on-site drainage through construction of new stormwater treatment and conveyance features, it would not alter the course of an existing stream or river that would result in on- or off-site erosion or siltation. Further, implementation of City guidelines related to stormwater control, would avoid substantial siltation and/or on- and off-site erosion. Impacts would be **less than significant**.

(ii) The northwestern segment of the project site including the two roundabouts are located outside the 100-year mapped flood zone (FEMA Flood Insurance Rate Map No. 06037C2204F, September 2008). The southeastern segment generally between Descanso Street and Clemente Street are located in Zone AE. The project would redirect on-site drainage patterns; however, it would not impede or redirect flood flows. The improvements would consist of street and storm drainage infrastructure. As referenced, all drainage would be managed to ensure pre-construction flows off-site are maintained. The project would not expose people or structures to greater flood hazard than what occurs under existing conditions. While drainage would be changed, a **less than significant** impact would occur under this threshold.

(iii) The stormwater treatment system is designed as part of the overall scope of project improvements to capture, convey and treat existing and future stormwater flows while improving the overall conveyance infrastructure along Tremont Street. The new culverts will be installed to convey upstream flows which currently flow in a partially open channel downstream of the Avalon Canyon Road/Tremont Street intersection. The open channel section will be widened and vegetated to slow flows which will facilitate the removal of sediment and other constituents prior to release into the existing concrete lined channel south of the project area. The system is designed to accommodate 100-year storm flows. The project will not exceed the capacity of the existing system. It will capture runoff from existing and future impervious surfaces within and surrounding the project area. It will not contribute substantial quantities of polluted runoff. Impacts would be **less than significant.**

(iv) As referenced, the stormwater treatment system proposed would be designed to capture and infiltrate the 100-year, 24-hour storm event flows. While the project would modify on-site drainage through construction of new stormwater treatment and conveyance features, the project would not result in the discharge of material into surface waters beyond what may occur as a result stormwater runoff. Further, the northwestern segment of the project site including the two roundabouts are located outside the 100-year mapped flood zone (FEMA Flood Insurance Rate Map No. 06037C2204F, September 2008). The southeastern segment generally between Descanso Street and Clemente Street are located in Zone AE. The project would redirect on-site drainage patterns; however, it would not impede or redirect flood flows. Impacts would be **less than significant.**

d) Seiches are oscillations of the surface of inland bodies of water that vary in period from a few minutes to several hours. Seismic excitations can induce such oscillations. Tsunamis are large sea waves produced by submarine earthquakes or volcanic eruptions. The City of Avalon is located within an area that could be affected by a tsunami. Those areas most vulnerable are located in proximity to Avalon Harbor. The project site is located well inland and at a high enough elevation that the tsunami risk is low.

As referenced in the General Plan Update, strong winds generated by northeasterly wind storms have the potential to cause large waves within the harbor. Wave damage is primarily limited to boats and structures in the harbor. Breakwaters on the westerly and easterly sides of

Avalon Bay have been constructed to reduce the threat of large waves. The project site is far enough inland that a seiche event in the harbor would not impact the area. No mudflows have occurred in the area and the project would not increase the potential for mudflow events to occur. **No impact** would occur under this threshold

e) The project would require water use during construction for dust control and related purposes. Post construction, the only water demand would be associated with landscape irrigation. The proposed project would be required to comply with federal, State and local plans, policies and regulations and Executive Order B-29-15, which requires reduction of potable water use during construction and implementation of Best Management Practices concerning water conservation, both for potable and non-potable uses. The City of Avalon General Plan Update provides goals related to water conservation and specifically refers to the use of high efficiency irrigation systems to minimize water demand. Mitigation Measures HYD-1 would assist in reducing project water demand and project related impacts on groundwater resources.

> **Mitigation Measure HYD-1:** Prior to the issuance of any grading or building permit, the project applicant shall submit a landscape plan to the City of Avalon Public Works Department. The landscape plan shall include, but is not limited to, the following:
>
> - To the greatest extent practicable, native plant materials and other approved drought-tolerant plants shall be used in all project landscaping.
>
> - Any proposed irrigation systems shall be reviewed and an irrigation system performance analysis shall be conducted to maximize the efficiency of the system and further reduce water demands.
>
> - Any irrigation system installed shall be maintained effectively to ensure that runoff and evaporation is kept to a minimum. This includes maximizing the effective watering of plant roots, using drip irrigation, moisture detectors, and computer-controlled systems to increase the efficiency.

With implementation of Mitigation Measure HYD-1, water demand would be minimized and the project would be consistent with applicable elements of the Avalon General Plan. The project site is not within a groundwater recharge area. Project impacts on groundwater supply would be **less than significant**.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
XI. <u>LAND USE AND PLANNING</u> -- Would the proposal:				
a) Physically divide an established community?	☐	☐	☐	☒
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒

a) The proposed project would construct new access and safety improvements at the Five Corner intersection. The project is included in the General Plan Update (2013) Circulation Element and is intended to improve traffic operation and pedestrian/bicyclist safety at this location. The proposed project would utilize the existing street network and all improvements would occur in the existing right of way. The project would not construct improvements that would physically divide an existing community or otherwise impact circulation on public roads surrounding the site. **No impact** would occur under this threshold.

b) The proposed project would be consistent with the current General Plan Update Circulation Element (2013) as referenced above. The project would not conflict with existing zoning or land use designations. The project would require a Coastal Development Permit which would be issued by the City of Avalon. **No impact** would occur under this threshold.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
XII. <u>MINERAL RESOURCES</u> -- 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	☐	☐	☐	☒

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
XII. MINERAL RESOURCES -- Would the project:				
recovery site delineated on a local general plan, specific plan, or other land use plan?				

a, b) Per the City of Avalon General Plan Update, there are areas within the City that contain mineral resources and are appropriate for mineral extraction. An existing rock quarry is located within the City's Sphere of Influence boundary. It produces crushed rock or aggregate primarily for construction uses. Historically, silver, lead and zinc mining have occurred on Catalina Island. The City of Avalon is not designated as a Mineral Resource Zone (MRZ). The proposed project would not require excavation of mineral resources nor would construction result in the loss of availability of any known regional or local mineral resources. Therefore, **no impact** to mineral resources would occur.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
XIII. NOISE – Would the project result in:				
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☒	☐

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
XIII. NOISE – Would the project result in:				
b) Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☒	☐

Noise levels (or volume) are generally measured in decibels (dB) using the A-weighted sound pressure level (dBA). The A-weighting scale is an adjustment to the actual sound power levels consistent with the human hearing response, which is most sensitive to frequencies around 4,000 Hertz (about the highest note on a piano) and less sensitive to low frequencies (below 100 Hertz).

Sound pressure level is measured on a logarithmic scale with the 0 dB level based on the lowest detectable sound pressure level that people can perceive (an audible sound that is not zero sound pressure level). Based on the logarithmic scale, a doubling of sound energy is equivalent to an increase of 3 dB, and a sound that is 10 dB less than the ambient sound level has no effect on ambient noise. Because of the nature of the human ear, a sound must be about 10 dB greater than the reference sound to be judged as twice as loud. In general, a 3 dB change in community noise levels is noticeable, while 1-2 dB changes generally are not perceived. Quiet suburban areas typically have noise levels in the range of 40-50 dBA, while those along arterial streets are in the 50-60+ dBA range. Normal conversational levels are in the 60-65 dBA range, and ambient noise levels greater than 65 dBA can interrupt conversations.

In addition to the instantaneous measurement of sound levels, the duration of sound is important since sounds that occur over a long period of time are more likely to be an annoyance or cause direct physical damage or environmental stress. One of the most frequently used noise metrics that considers both duration and sound power level is the equivalent noise level (L_{eq}). The L_{eq} is defined as the single steady A-weighted level that is equivalent to the same amount of energy as that contained in the actual fluctuating levels over a period of time (essentially, the average noise level). Typically, L_{eq} is summed over a one-hour period.

The time period in which noise occurs is also important since noise that occurs at night tends to be more disturbing than that which occurs during the daytime. Two commonly used noise metrics – the Day-Night average level (L_{dn}) and the Community Noise Equivalent Level (CNEL) recognize this fact by weighting hourly L_{eq} over a 24-hour period. The L_{dn} is a 24-hour average noise level that adds 10 dB to actual nighttime (10:00 PM to 7:00 AM) noise levels to account for the greater sensitivity to noise during that time period. The CNEL is identical to the L_{dn}, except it also adds a 5 dB penalty for noise occurring during the evening (7:00 PM to 10:00 PM).

Vibration is sound radiated through the ground. The rumbling sound caused by the vibration of room surfaces is called ground borne noise. Ground borne vibration is almost exclusively a concern inside buildings and is rarely perceived as a problem outdoors. Ground-borne vibration related to human annoyance is generally related to velocity levels expressed in vibration decibels (VdB). However, construction-related groundborne vibration in relation to its potential for building damage can also be measured in inches per second (in/sec) peak particle velocity (PPV) (Federal Transit Administration, May 2006). Based on the FTA's *Transit Noise and Vibration Impact Assessment* and the California Department of Transportation's 1992 *Transportation-Related Earthborne Vibration, Technical Advisory*, vibration levels decrease by 6 VdB with every doubling of distance.

Noise exposure goals for various types of land uses reflect the varying noise sensitivities associated with those uses. Residences, hospitals, schools, guest lodging, libraries, and parks are most sensitive to noise intrusion; and therefore, have more stringent noise exposure standards than commercial or industrial uses that are not subject to impacts such as sleep disturbance. Sensitive land uses generally should not be subjected to noise levels that would be considered intrusive in character. Therefore, the location, hours of operation, type of use, and extent of development warrant close analysis in an effort to ensure that noise sensitive receptors are not substantially affected by noise.

Noise Standards

Federal Noise Policies. There are no federal noise requirements or regulations that apply directly to the City of Avalon. However, there are federal regulations that influence the audible landscape, especially for projects where federal funding is involved. For example, the FHWA requires abatement of highway traffic noise for highway projects through rules in the Code of Federal Regulations (23 CFR Part 772), the Federal Transit Administration (FTA), and Federal Railroad Administration (FRA). Each agency recommends thorough noise and vibration assessments through comprehensive guidelines for any highway, mass transit, or high-speed railroad projects that would pass by residential areas.

Federal Vibration Policies. The Federal Transit Administration (FTA) has published guidelines for assessing the impacts of groundborne vibration associated with construction activities, which have been applied by other jurisdictions to other types of projects. The FTA measure of the threshold of architectural damage for non-engineered timber and mason

buildings (e.g., residential units) is 0.2 in/sec PPV. The threshold of perception of vibration is 0.01 in/sec PPV (Federal Transit Administration, Office of Planning and the Environment, 2006).

State Noise Policies. Title 24, Section 3501 et. seq. of the California Code of Regulations codifies California Noise Insulation Standards. This code section uses the Community Noise Equivalency Level (CNEL) as its primary noise evaluation measurement. The CNEL measurement assesses noise variation during different times of the day for the purposes of averaging noise over a 24-hour period. Essentially, CNEL takes average sound levels at an observation point and adds a weighted penalty to those sounds that occur during the evening (+5 dBA) and nighttime hours (+10 dBA). An interior noise level of 45 dBA CNEL is often considered the desirable noise exposure level for single-family residential units. An exterior noise level of 65 dBA is generally considered an acceptable level for residential and other noise-sensitive land uses.

State Vibration Policies. There are no state standards for traffic-related vibrations. California Department of Transportation's (Caltrans) position is that highway traffic and construction vibrations generally pose no threat to buildings and structures. For continuous (or steady-state) vibrations; however, Caltrans considers the architectural damage risk level to be somewhere between 0.2 and 2.0 inches/second (California Department of Transportation, 2002).

City of Avalon Noise Ordinance. Chapter 13, Section 5-13.05 of the Avalon Municipal Code prohibits the operation of construction equipment within five hundred (500') feet of any residential zone or of a hotel or motel, between the hours of 7:00 pm and 8:00 am Monday through Saturday or anytime on Sunday.

a) **Construction Noise**. Temporary, construction-related noise would occur during construction of the proposed project. The noise levels associated with the operation of common construction equipment are shown in Table 7. The noise levels are provided for reference purposes; not all equipment shown would be used for the proposed project. Noise levels are expected to occur within the ranges shown.

Table 7
Typical Construction Equipment Noise Levels

Type of Equipment	Range of Maximum Sound Levels Measured (dBA at 50 feet)	Maximum Sound Levels for Analysis (dBA at 50 feet)
Pile Driver 12,000 to 18,000 ft-lb/blow	81–96	93
Rock Drills	83–99	96
Jack Hammers	75–85	82

Type of Equipment	Range of Maximum Sound Levels Measured (dBA at 50 feet)	Maximum Sound Levels for Analysis (dBA at 50 feet)
Pneumatic Tools	78–88	85
Pumps	74–84	80
Scrapers	83–91	87
Haul Trucks	83–94	88
Cranes	79-86	82
Portable Generators	71-87	80
Rollers	75-82	80
Dozers	77–90	85
Tractors	77–82	80
Front-End Loaders	77–90	86
Hydraulic Backhoe	81-90	86
Hydraulic Excavators	81–90	86
Graders	79–89	86
Air Compressors	76–89	86
Trucks	81–87	86
Trencher	73-80	80

Source: Bolt, Beranek & Newman, Noise Control for Buildings and Manufacturing Plants, 1987.

dBA = A-weighted decibels, ft-lb/blow = foot-pounds per blow

Construction of the proposed improvements may utilize, dozers, tractors, loaders, trucks and a variety of other types of equipment as individual phases of the construction process progress. Noise levels associated with the equipment commonly used will range from 80 to 88 dBA at 50 feet from the source. A doubling of sound energy yields an increase of three decibels, so multiple pieces of equipment operating together may cause relatively small but noticeable increases in noise levels above that associated with one piece of equipment. Assuming two pieces of construction equipment, each producing a noise level of 88 dBA, are operating at one time on the site, the worst-case combined noise level during the site preparation phase of construction is an estimated 91 dBA at a distance of 50 feet from the active construction area.

Residential properties are located adjacent to the project site; thus, construction noise would be audible and could reach 91 dBA or more at various times during the workday depending on the type and proximity of equipment being used. This could be considered a substantial temporary increase in noise levels.

Construction noise is regulated by local jurisdictions. It is not subject to the State Noise Policy referenced above. As referenced, Chapter 13, Section 5-13.05 of the Avalon Municipal Code prohibits the operation of construction equipment within five hundred (500') feet of any residential zone or of a hotel or motel, between the hours of 7:00 pm and 8:00 am Monday through Saturday or anytime on Sunday. While construction noise would be audible, construction activities occurring outside those hours would be exempt from regulation. Provided construction is conditioned to occur between 8:00 a.m. and 7:00 p.m. Monday through Saturday, temporary and substantial noise levels generated during construction of each phase would be **less than significant**.

Operational Noise. The proposed project would facilitate improvements in traffic flow and pedestrian safety. The project would not generate vehicle trips; however, traffic circulation improvements may result in higher speeds which could increase noise levels at receivers located adjacent to the existing streets. Whether a traffic-related noise impact could occur is based on whether the improvements would cause the existing Leq to noticeably increase (+3 dBA). For noise levels to noticeably increase, sound energy would have to increase two-fold either by doubling existing hourly volumes or speeds or halving the distance between the source and receiving properties. The project would not generate traffic as noted. Vehicles would operate more efficiently but speeds would not double. All improvements would occur within the existing road right of way. Proximity of vehicle operation to sensitive properties is not expected to be reduced by one-half. Operational impacts related to traffic noise, would be **less than significant.**

b) Vibration is a unique form of noise 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 truck pass-bys. 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 vibration rapidly diminishes in amplitude with distance from the source. In the U.S., the ground motion caused by vibration is measured as particle velocity in inches per second and is referenced as vibration decibels (VdB).

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. If a roadway is smooth, the groundborne vibration from traffic is barely perceptible. The range of interest is from approximately 50 VdB, which is the typical background vibration velocity, to 100 VdB, which is the general threshold where minor damage can occur in fragile buildings. The streets associated with the project

improvements are not designated truck routes; however, heavy trucks periodically use the roadway. There were no activities observed in the area that generate perceptible groundborne vibration.

Construction activity on the project site would be temporary and any vibration would likely not persist for long periods. Assuming vibration levels would be simlar to those associated with a small bulldozer, typical groundborne vibration levels would be 58 VdB at 25 feet, 52 VdB at 50 feet, and 46 VdB at 100 feet, based on the Federal Transit Administration's (FTA's) *Transit Noise and Vibration Impact Assessment* (May 2006) as shown in Table 9.
Construction activities that typically generate substantial groundborne vibration include deep excavation and pile driving. Based on the proposed scope of improvements, this type of construction activity is not expected. General construction associated with the project would be confined to the project site and consist of grading, excavations for installation of the improvements. It would be temporary in duration. The closest receivers are located adjacent to the construction area. Based on the information presented in Table 8, vibration levels could be approximately 58 VdB at 25 feet during construction assuming a small bulldozer is the heaviest piece of equipment used during grading or site clearing.

As discussed, 100 VdB is the threshold where minor damage can occur in fragile buildings. Vibration levels are projected to be under this threshold; thus, structural damage is not expected to occur as a result of construction activities associated with the proposed project.

Table 8
Typical Vibration Source Levels for Construction Equipment

Equipment	Approximate VdB				
	25 Feet	50 Feet	60 Feet	75 Feet	100 Feet
Large Bulldozer	87	81	79	77	75
Loaded Trucks	86	80	78	76	74
Jackhammer	79	73	71	69	67
Small Bulldozer	58	52	50	48	46

Source: Federal Railroad Administration, 1998

Given the distance between the construction area and the nearest receiver, vibration levels could exceed the groundborne velocity threshold level of 72 VdB for sensitive properties and/or buildings where people sleep depending on the type of equipment used. Based on the size of the construction area, it is unlikely that a large bulldozer would be used; however, it is possible that a jackhammer or small bulldozer could be used. Loaded trucks would be required to transport material to/from the site. Maximum vibration levels could reach 86 VdB at 25 feet

from the source during truck pass events and will vary as individual pieces of equipment are used throughout the workday. This could be considered a substantial periodic increase in vibration levels. Construction activities occurring within the time period referenced in Chapter 13, Section 5-13.05, would limit vibration to the time of day which is least sensitive to sleep disturbance. A project condition that limits construction to those hours allowed by Avalon Municipal Code would reduce temporary impacts to **less than significant**.

c) Avalon Airport is located approximately 7 miles northwest of the project site. There are no private airstrips in proximity to the site. The proposed project is located outside the Airport Land Use Compatibility Zone. While some overflights may occur and be audible, the project is not a noise sensitive use. **No impact** would occur under this threshold.

	Potentially Significant Impact	**Potentially Significant Unless Mitigation Incorporated**	**Less than Significant Impact**	**No Impact**
XIV. <u>POPULATION AND HOUSING</u> — Would the project:				
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☒
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

a) The proposed project is comprised of access and safety improvements at the Five Corner intersection. The proposed project would not require the removal of housing to accommodate improvements. The project would not induce population growth directly as a result of new development or indirectly through the extension of utility infrastructure to a currently unserved area. The project would not generate jobs; thus, no housing would be needed to accommodate employees. **No impact** related to population growth would result from project implementation.

b) The project site is comprised of existing street, pedestrian and stormwater channel improvements. Project implementation would not result in the removal of existing housing or the displacement of residents that would require the construction of replacement housing elsewhere. **No impact** would occur under this threshold**.**

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
XV. 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-v) The Avalon Fire Department provides fire and emergency medical services to the City of Avalon. The Avalon Fire Station is located at 420 Avalon Canyon Road adjacent to the project area. The Avalon Fire Department operates out of a single station located at 420 Avalon Canyon Road. The facility is a single-story station with 8 apparatus bays, living quarters, equipment and utility areas attached. This station has been in service since 2004. the Avalon Fire Department is served by 11 Full-Time Professional Firefighter positions and a 30-member Reserve Firefighting staff.

Given the nature of the project, it is not expected to cause an increase in demand for fire and/or emergency medical service. Further, the project has been designed to accommodate the largest fire truck used by the Avalon Fire Department. As referenced, larger vehicles would mount (i.e., roll over) the round-about; thus, response time would not be affected with installation of the improvements. The project would not require the construction of a new station or expansion of the existing facility to maintain service ratios.

Law enforcement services are provided by the Los Angeles County Sheriff Department. The Avalon station is located at 215 Sumner Avenue. The project is comprised of access and safety

improvements and is not expected to generate increased demand for law enforcement services. The project would not increase the population beyond what was anticipated in the Avalon General Plan. The project would not require the construction of new or expanded Police Department facilities.

The Avalon K-12 School was established in its current location at 200 Falls Canyon Road in 1924. It is located approximately ¼ mile southwest of the project area. A part of Long Beach Unified School District, Avalon School is the only school on Santa Catalina Island and elementary, middle, and high school students share the same campus. The total school enrollment for 2016-17 was 605 students. The project would provide access and safety improvements. It is intended in part, to improve access to/from the campus for students, faculty and staff that travel through the Five Corner intersection. The project would not affect demand for school services or require the construction of new schools.

The Avalon Branch Library which is part of the Los Angeles County Library system provides library services to city residents. The library is located at 215 Sumner Avenue in the City of Avalon. The project would not increase the population of Avalon or otherwise affect demand for library services. No new or expanded library services would be required.

People's Park is the nearest park to the project site. It is located adjacent to and northwest of the project area at the intersection of Avalon Canyon Road and Tremont Street. The project would not increase the population of Avalon or otherwise affect demand for park facilities. The project would not remove park or recreational facilities that would require replacement elsewhere.

The project would not require the provision of new or physically altered governmental facilities to maintain acceptable levels of service. As noted, no increase in demand for fire, police or other government services are anticipated. **No impact** to public services would occur with the proposed project.

	Potentially Significant Impact	**Potentially Significant Unless Mitigation Incorporated**	**Less than Significant Impact**	**No Impact**
XVI. RECREATION --				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities	☐	☐	☐	☒

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
XVI. RECREATION --				
which might have an adverse physical effect on the environment?				

a-b) The project would be comprised of access and safety improvements at the Five Corner intersection. The project would not contribute to an increase in the Avalon population as referenced above otherwise affect demand for recreational resources. **No impact** would occur under this threshold.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
XVII TRANSPORTATION -- Would the project:				
a) Conflict with a program, plan, ordinance or policy addressing the circulation system including transit, roadway, bicycle and pedestrian facilities?	☐	☐	☐	☒
b) Would the project conflict with or be inconsistent with CEQA Guidelines section 15064.3, subdivision?	☐	☐	☒	☐
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible use (e.g., farm equipment)?	☐	☐	☐	☒
d) Result in inadequate emergency access?	☐	☐	☐	☒
e) Conflict with adopted policies, plans, or programs regarding public transit, bikeways, or pedestrian facilities, or otherwise substantially decrease the performance or safety of such	☐	☐	☐	☒

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
XVII <u>TRANSPORTATION</u> -- Would the project:				
facilities?				

The following summarizes findings and recommendations provided in the *Tremont Street – Five Corner Traffic Analysis* prepared by W-Trans, Inc. (November 2017) (Appendix D).

a) No inconsistencies with General Plan Circulation Element policies would occur. The project is intended to improve access and safety within the study area and is referenced in the Circulation Element of the General Plan (Figure VI-2) (June 2013). The project as described herein, is consistent with the description provided in the General Plan and would enhance pedestrian circulation throughout the project area. No inconsistencies with plans related to bicycle or pedestrian access would occur. **No impact** would occur under this threshold.

b) CEQA Guidelines Section 15064.3 state that traffic impact analyses should be performed using the vehicle-miles traveled (VMT) metric beginning July 1, 2020, unless the lead agency elects to be regulated by previous iterations of this section. Traffic operations have commonly been measured using Level of Service (LOS). LOS is a qualitative measure used to describe roadway and intersection operation by categorizing traffic flow and assigning a letter designation based on performance measures including vehicle speed, density, delay and congestion. LOS A is used to described free flowing traffic conditions with no delay. LOS F is used to describe heavily congested conditions. In this case, the project is intended to improve traffic circulation and pedestrian safety. It will not increase VMT; thus, the City of Avalon has elected to use LOS as the metric for determining the significance of project-related transportation impacts.

Peak traffic volumes using the Five Corner intersection occur in the 15-minute period from 7:45 to 8:00 a.m. when students are traveling to school and people are using the intersection to travel to work. The 15-minute traffic volumes, when extrapolated to one-hour conditions, show a vehicle entry rate of 1,148 vehicles per hour. Using standard intersection operational analysis tools and assuming standard vehicle capacity conditions, the a.m. peak period operates at LOS F under existing conditions. As referenced, LOS F is typically characterized by heavily congested conditions and poor operation.
With installation of the proposed improvements, the intersections that comprise the Five Corners intersection, would operate with yield-on-entry and counter-clockwise movements. Signing, striping and pavement markings would be provided to assist with navigation of the intersection for drivers, bicyclists and pedestrians. The project will allow more vehicle movements through the area and reduce the number of vehicle and pedestrian conflict points

than under existing conditions. Using standard intersection operational analysis tools and assuming standard vehicle capacity conditions, the dual mini roundabouts would improve the LOS from F to A (i.e., free flowing conditions) during the a.m. peak period. Impacts would be **less than significant** under this threshold.

c) The project scope is the installation of access and safety improvements at the Five Corners intersection. All construction would occur consistent with industry standards for roundabout facilities as well as City public works road design requirements. Project design is intended to improve safety. It would not increase hazards or otherwise adversely impact public safety by introducing incompatible equipment. **No impact** would occur.

d) The proposed project would not alter emergency access routes. While modifications within emergency access routes would occur, the roundabouts would be mountable by City of Avalon and Los Angeles County emergency response vehicles. Because construction would occur within the primary access intersection between the City of Avalon Fire Station and downtown Avalon, construction would need to be sequenced to ensure that emergency access is maintained. Some temporary rerouting may be required. Post-construction, project improvements would have no adverse effects on emergency access. **No impact** would occur.

e) No inconsistencies with General Plan Circulation Element policies would occur. The project is intended to improve access and safety within the study area and is referenced in the Circulation Element of the General Plan (Figure VI-2) (June 2013). The project as described herein, is consistent with the description provided in the General Plan. No inconsistencies with plans related to bicycle or pedestrian access would occur. **No impact** would occur under this threshold.

	Potentially Significant Impact	**Potentially Significant Unless Mitigation Incorporated**	**Less than Significant Impact**	**No Impact**
XVIII. TRIBAL CULTURAL RESOURCES -- Would the project:				
a) Cause a substantial adverse change in the significance of a tribal cultural resource, defined in the Public Resource Code section 21074 as either a site, feature, place cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place or object with cultural value to a California Native American tribe, and that is:	☐	☐	☐	☒

a. Listed or eligible for listing in the California Register of Historic Places, or in a local register of historical resources as defined in Public Resource Code section 5020.1(k), or b. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resource Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☒	☐	☐

a) Resource P-19-4747 (CA-LAN-004747H) is a thin subsurface historic refuse deposit recorded in 2016 within Tremont Avenue during trenching for a utility project. The recordation notes state that the refuse appeared to be from multiple instances of trash dumping during the twentieth century. As such, this thin smear of artifacts is likely a secondary deposition lacking context; and therefore, not eligible for California Register of Historic Resources or National Register of Historic Places listing based on a lack of data potential and integrity. Evidence indicates that the probability of finding additional historic archaeological resources during project excavation is moderate to high. However, as noted, the material is not considered to be historically significant. **No impact** to historic resources would occur.

b) As discussed in Section V, *Cultural Resources*, as part of the Phase I Cultural Resources Assessment methodology, BPG requested a review of the Sacred Lands File (SLF) by the Native American Heritage Commission (NAHC) on October 10, 2018. The NAHC responded on October 29, 2018, stating that the SLF search was positive; the project vicinity is sensitive for Native American cultural resources and recommending that six Native American Tribes be contacted for further input. BPG prepared and mailed letters dated November 3, 2018, to the six Native American tribal contacts describing the project and asking if they had knowledge regarding cultural resources of Native American origin within or near the project site.

Robert Dorame of the Gabrielino Tongva Indians of California Tribal Council responded via telephone on December 3, 2018, stating that the Avalon area is highly sensitive for buried

Native American archaeological resources and he is working on the repatriation of Native American human remains from a project in Avalon. Mr. Dorame additionally stated that he is a direct lineal descendant and that a Native American monitor from the Gabrielino Tongva Indians of California Tribal Council should be retained to observe project related ground disturbance.

No other replies were received as of December 18, 2018. All coordination efforts are presented in the *Phase I Cultural Resources Assessment* (Appendix C). The six Native American Tribes that were initially contacted will receive a copy of the Initial Study as part of the AB52 consultation process. Provided no further mitigation recommendations are received as a result of AB52 consultation, implementation of Mitigation Measures CR-1, CR-2 and CR-3 would reduce potential impacts to Tribal Cultural Resources to **less than significant.**

	Potentially Significant Impact	**Potentially Significant Unless Mitigation Incorporated**	**Less than Significant Impact**	**No Impact**
XIX. <u>UTILITIES AND SERVICE SYSTEMS</u> -- Would the project:				
a) Require or result in the relocation or construction of new or expanded water, or wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities or expansion of existing facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☒	☐
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☐	☒
c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☒

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
XIX. UTILITIES AND SERVICE SYSTEMS -- Would the project:				
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☒	☐

a) The Avalon sewer collection system consists of approximately 9 miles of gravity mains ranging in size from 6-inch to 18-inch. The sewer collection system also includes two sewer pump stations and approximately 1.2 miles of 12-inch and 16-inch force mains. All flows are conveyed to the wastewater treatment plant located at 123 Pebbly Beach Road (RBF 2014). The project would construct access and safety improvements at the Five Corner intersection. It would not result in the need for construction of new or modified wastewater systems.

Southern California Edison has been providing water service to Catalina Island since 1962. Currently, the water infrastructure includes wells, storage, water treatment and distribution, and a desalination plant. The City of Avalon is located within the East End water distribution system. The primary source of fresh water comes from the aquifer connected to the Middle Ranch Reservoir. The reservoir has a capacity of about 1,149-acre feet. Fresh ground water is drawn from the aquifer via three groundwater wells in Middle Ranch. The water is aerated and chlorinated and then pumped to Wrigley Reservoir for distribution to the city of Avalon and other users within the island's East End. No modifications to the water system would be needed to address capacity limitations.

As discussed in the project description and Section IX, *Hydrology and Water Quality*, all stormwater would be routed through new subsurface system conduits installed at the northern end of Tremont Street. The existing soft bottom channel would remain in the southern segment (i.e., from Descanso Avenue to Clemente Avenue). This area would infiltrate stormflows and provide treatment prior to discharge into the regional storm channel located at the southern terminus of Tremont Avenue. Potential environmental impacts caused by construction of the collection and conveyance system are evaluated as part of the overall project. No impact in additional to those evaluated would occur.

Southern California Edison electrical lines as well as telephone/cable lines would be rerouted or undergrounded as part of the project. No additional capacity would be required as a result of project improvements. Impacts under this threshold would be **less than significant**.

b) The project would construct access and safety improvements at the Five Corners intersection. It would not result in the construction of new uses or the modification of existing uses that would increase demand for potable water. No improvements to the existing water system would be required as a result of the proposed project. **No impact** would occur under this threshold.

c) As discussed, the project would construct access and safety improvements at the Five Corner intersection. It would not affect the capacity of the existing wastewater system or ability of the service provider to treat wastewater. **No impact** would occur under this threshold.

d) The proposed project would generate construction/demolition waste (CDW). Solid waste within the City of Avalon is managed by Avalon Environmental Services, a CR&R Incorporated, company. Collected material is transported to the Material Recovery Facility (MRF) where it is sorted. The recovered materials are baled and barged back to the mainland where it is transported to recyclers. The remaining material compacted in a baler and placed in the landfill. The Pebbly Beach Landfill is located on 7.7 acres in size with approximately 5.6 acres of landfill area. Greenwaste is recycled using a Windrow composting system.

It is presumed that construction waste would be comprised of asphalt, concrete, metals, wood, landscape and typical domestic material. The California Integrated Waste Management Act (CIWMA) of 1989 mandates that all cities and counties in California reduce solid waste disposed at landfills generated within their jurisdictions by 50% and has a long-term compliance goal of 75% per AB 341. CDW associated with the proposed project will be recycled to the extent practicable with the remainder sent to the landfill. A **less than significant impact** would occur under this threshold.

XX. WILDFIRES -- Would the project:

a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☒	☐

XX. WILDFIRES -- Would the project:

c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☐	☒
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☒	☐

a) The proposed project would make pedestrian improvements to the Five Corner intersection and surrounding area. The project would not add traffic but rather would improve the safety of existing pedestrians and cyclists using the intersection as well as the efficiency of operation for vehicles. The project would not adversely impact traffic operations; and thus, would not impact use of the intersection as an evacuation or emergency response route. A **less than significant** impact would occur under this threshold.

b) The project is surrounded by single- and multifamily residential uses. The City Hall complex is located adjacent to and west of the site. Prevailing wind is from the west and the project is generally downslope of the development to the west. No native habitat is located adjacent to the project area. Thus, while the area could be affected by wildfire, it is not expected to be exposed to higher risk resulting from surrounding slopes or prevailing winds than what occurs under existing conditions. Further, no structures are part of the project; and thus, the improvements would likely be unaffected if a wildfire were to occur. Impacts would be **less than significant.**

c) The proposed project would construct pedestrian, street, landscaping and stormwater improvements. The site is currently an active transportation facility. The streets would serve as a fuel break if a fire were to occur. No additional fire prevention efforts would be required to reduce fire risk. **No impact** would occur under this threshold.

d)The site is located downslope from areas along Avalon Canyon Road and Country Club Drive. However, these areas are relatively small and if they were to burn, it is unlikely that a substantive risk from landslide or mudflow would result. The area east of the site is the urbanized portion of Avalon. It does not contain steep slopes. Impacts would be **less than significant.**

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
XXI. 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 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 the potential to achieve short-term environmental goals to the disadvantage of long-term environmental goals?	☐	☐	☒	☐
c) 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)?	☐	☐	☒	☐
d) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

a) The project would be comprised of transportation improvements. The project would remove ruderal vegetation and non-native ornamental species in some areas prior to construction. There are no threatened, endangered or sensitive plant or animal species occurring on the site; however, nesting and foraging habitat does occur on-site and on adjacent properties. With implementation of BIO-1, impacts to biological resources would be less than significant.

Based on information provided by Mr. Robert Dorame of the Gabrielino Tongva Indians of California Tribal Council, the Avalon area is considered highly sensitive for buried Native American archaeological resources. Paleontological resource sensitivity is considered to be low. With implementation of CUL-1 and CUL-2, impacts to cultural resources would be **less than significant**.

b) The proposed project would provide a new transportation facility. Construction of the project would occur consistent with state and local regulations regarding the type of project proposed. This would be consistent with the state's long-term environmental goals by providing new infrastructure consistent with applicable regulations. A **less than significant** impact would occur.

c) As presented in the discussion of environmental checklist Sections I through XX, 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. With mitigation measures, potentially significant impacts would be reduced to **less than significant**. Based on the limited scope of direct physical impacts to the environment associated with the proposed project, the impacts are project-specific in nature. Consequently, the project along with other cumulative projects would result in a **less than significant** cumulative impact with respect to all environmental issues.

d) In general, impacts to human beings are associated with air quality, hazards and hazardous materials and noise. As presented in the environmental checklist discussions, the project would have no impact or a less than significant impact with respect to these environmental issues. Therefore, the project would have a **less than significant** impact on human beings.

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