Euclid-Hazard 7-Eleven Service Station Project

Draft Initial Study/
Mitigated Negative Declaration

Lead Agency:
City of Santa Ana
Planning and Building Agency • Planning Division
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December 2019

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ACRONYMS & ABBREVIATIONS

Acronym/Abbreviation	Definition
AB52	Assembly Bill 52
ADT	average daily traffic
afy	acre feet per year
Applicant	ASi Development
APN	Assessor's Parcel Number
AQMP	Air Quality Management Plan
ASTs	above ground storage tanks
BMPs	Best Management Practices
CAAQS	California Ambient Air Quality Standards
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CBC	California Building Code
CCR	California Code of Regulations
CEQA	California Environmental Quality Act
Cfs	cubic feet per second
CGS	California Geologic Survey
CHSC	California Health and Safety Code
City	City of Santa Ana
CMP	Congestion Management Program
CNEL	Community Noise Equivalent Value
CO	Carbon monoxide
CUP	Conditional Use Permit
County	Orange County
CWA	Clean Water Act
DAMP	Drainage Area Management Plan
db	decibel
dBA	A-weighted decibels
EDR	Environmental Data Resources, Inc.
EIR/EIS	Environmental Impact Report/Environmental Impact Study
EPA	Environmental Protection Agency
ESA	Environmental Site Assessment
FAR	Floor area ratio

FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FTA	Federal Transit Administration
GHG	Greenhouse gas
GPA	General Plan Amendment
GPCD	Gallons per capita per day
GWRS	Groundwater replenishment system
HCM	Highway Capacity Manual
HVAC	Heating, ventilation, and air condition
IS	Initial Study
Leq	Equivalent sound level
LIP	Local Implementation Plan
LOS	Level of service
LRA	Local responsibility area
LSTs	Localized Significant Thresholds
M-1	Light Industrial
M-2	Industrial Manufacturing
MERV	Minimum Efficiency Reporting Value
Mgd	million gallons per day
MLD	most likely descendent
MND	Mitigated Negative Declaration
MRZ	Mineral Resource Zone
MS4	Municipal Separate Storm Sewer System
MSL	mean sea level
$MTCO_2e$	million metric tons of carbon dioxide equivalent
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NCCP	Natural Communities Conservation Plan
NO_2	Nitrogen dioxide
NPDES	National Pollution Discharge Elimination System
SAPD	Santa Ana Police Department
OSHA	Occupational Safety and Health Administration
$PM_{2.5}$	fine particulate matter
PM_{10}	Respirable particulate matter

ppm	Parts per million
PPV	Peak particle velocity
Project Site	813 North Euclid Street
RA	Resource Area
RCPG	Regional Comprehensive Plan and Guide
RCNM	Roadway Construction Noise Model
RWQCB	Regional Water Quality Control Board
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SLF	Sacred Lands File
SO_2	Sulfur dioxide
SRA	State responsibility area
SR-22	State Route 22
SWRCB	State Water Resources Control Board
SWPPP	Storm Water Pollution Prevention Plan
TAC	Toxic air contaminant
TMDLs	Total maximum daily loads
USACE	U.S. Army Corps of Engineers
USTs	Underground storage tanks
UWMP	Urban Water Management Plan
V/C	volume-to-capacity
VHFHSZ	Very High Fire Hazard Severity Zone
VOC	volatile organic compound
WoUS	Waters of the United States
ZC	Zone Change

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MITIGATED NEGATIVE DECLARATION

Project Title: Euclid-Hazard 7-Eleven Service Station	**Reference Application Numbers:** DP 2018-8 (Development Project Review) AA-2019-3 (Amendment Application, Zone Change) CUP No. 2019-21 (Conditional Use Permit, Afterhours)
Lead Agency: City of Santa Ana 20 Civic Center Plaza Ross Annex M-20 Santa Ana, CA 91701	**Contact Person and Telephone No.:** Ivan Orozco, Assistant Planner II (714) 667-2763
Project Proponent and Address: ASi Development 5932 Bolsa Avenue, Suite 107 Huntington Beach, CA 92649	**Contact Person and Telephone No.:** Adan Madrid (714) 892-8810
Project Location: City of Santa Ana APNs: 100-231-01	
Existing General Plan Designation: GC 0.5 (General Commercial, FAR .5)	**Existing Zoning Classification:** R2 (Two Family Residential)

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SECTION 1.0 INTRODUCTION

1.1 Purpose of Environmental Review

The California Environmental Quality Act (CEQA) requires that all state and local government agencies consider the environmental consequences of projects over which they have discretionary authority before acting on those projects. This Initial Study has been prepared to disclose and evaluate short-term construction related impacts and long-term operational impacts associated with the implementation of the City of Santa Ana (City) Euclid-Hazard 7-Eleven Service Station Project (Proposed Project).

Pursuant to Section 15367 of the State CEQA guidelines, City of Santa Ana is the Lead Agency and has the principal responsibility of approving and implementing the Proposed Project. As the Lead Agency, the City is required to ensure that the Proposed Project complies with CEQA and that the appropriate level of CEQA documentation is prepared. Through preparation of an Initial Study as the Lead Agency, the City would determine whether to prepare an Environmental Impact Report (EIR), Negative Declaration or Mitigated Negative Declaration (MND). If the Lead Agency finds that there is no evidence that a project activity either as proposed or as modified to include the mitigation measures identified in the Initial Study prior to its public circulation, would not cause a significant effect on the environment, the Lead Agency may prepare a Negative Declaration or Mitigated Negative Declaration. Based on the conclusions of this Initial Study, the City has recommended that the appropriate level of environmental documentation for the Proposed Project is a Mitigated Negative Declaration.

1.2 Statutory Authority and Requirements

This Initial Study/Mitigated Negative Declaration has been prepared in accordance with the CEQA, Public Resources Code Section 21000 et seq. State CEQA Guidelines and City of Santa Ana CEQA Environmental Procedures.

1.3 Technical Information and Studies

The following technical studies and information have been incorporated in the environmental impact evaluation prepared for the Euclid-Hazard 7-Eleven Service Station Project:

Appendix A – *Air Quality, Energy, and Greenhouse Gas Emissions Impact Analysis, 813 N Euclid Street Gas Station Project,* Vista Environmental, October 4, 2019

Appendix B – *Cultural and Paleontological Resources Assessment for the Euclid Fueling Station Project,* Cogstone, October 2019

Appendix C – *Report of Geotechnical Investigation Proposed Building and Improvements*, Garcrest Engineering and Construction, Inc., April 2, 2018

Appendix D – *Preliminary Water Quality Management Plan,* NA & Associates, Inc., August 28, 2018

Appendix E – *Hydrology and Hydraulics Report,* NA & Associates, Inc., October 2019

Appendix F – *Phase I Environmental Site Assessment Proposed 7-Eleven Store #1042163,* Stantec Consulting Services, Inc., October 17, 2019

Appendix G – *Phase II Environmental Site Assessment 7-Eleven Store No. 38384 (1042163),* Stantec Consulting Services, Inc., October 18, 2019

Appendix H – *Noise Impact Analysis, 813 N Euclid Street Gas Station Project,* Vista Environmental, October 8, 2019

Appendix I – *Focused Traffic Impact Assessment for the Proposed 813 N. Euclid Street Gas Station Project,* Linscott, Law & Greenspan Engineers, October 18, 2019

SECTION 2.0 EXISTING SETTING

2.1 Regional Setting

The Project Site is located within the City of Santa Ana which covers approximately 27.39 square miles in the northwestern area of Orange County, California. Adjacent areas include the City of Tustin to the east; the Cities of Fountain Valley and Westminster to the west; the Cities of Orange and Garden Grove to the north; and the Cities of Irvine and Costa Mesa to the south (**Figure 1** – *Regional Vicinity Map*).

2.2 Existing Site Conditions

The Project Site is a vacant parcel, located at 813 North Euclid Street, identified as Assessor's Parcel Number (APN) 100-231-01. The Project Site is approximately 28,081 square feet (SF) or 0.64-acres located at the southeast corner of the intersection of North Euclid Street and West Hazard Avenue, in the northwest portion of the City (**Figure 2** – *Project Vicinity Map*).

The Project Site is a vacant 00.64-acre parcel with a General Plan land use designation of General Commercial (GC) and Zoning Classification of Two-Family Residential (R2) (**Figure 3** – *General Plan Land Use and Zoning Designation*). The Project Site is bounded by single- and multi-family residential uses to the north, south, and west, and a Buddhist Temple to the east. North Euclid Street is located directly to the west of the Project Site, and West Hazard Avenue is located directly to the north (**Figure 4** – *Area Plan*). The Project Site can be accessed by State Route 22 (SR-22), via the intersections of SR-22 and North Euclid Street located approximately .8 miles to the north. The existing site has two curb cuts, one located on North Euclid Street and one located on West Hazard Avenue. The topography of the existing site is generally flat, with no significant slopes present. The Project Site is previously disturbed, with little vegetation on-site. Four mature trees are located on the perimeter of the Project Site, located directly adjacent to the public sidewalk.

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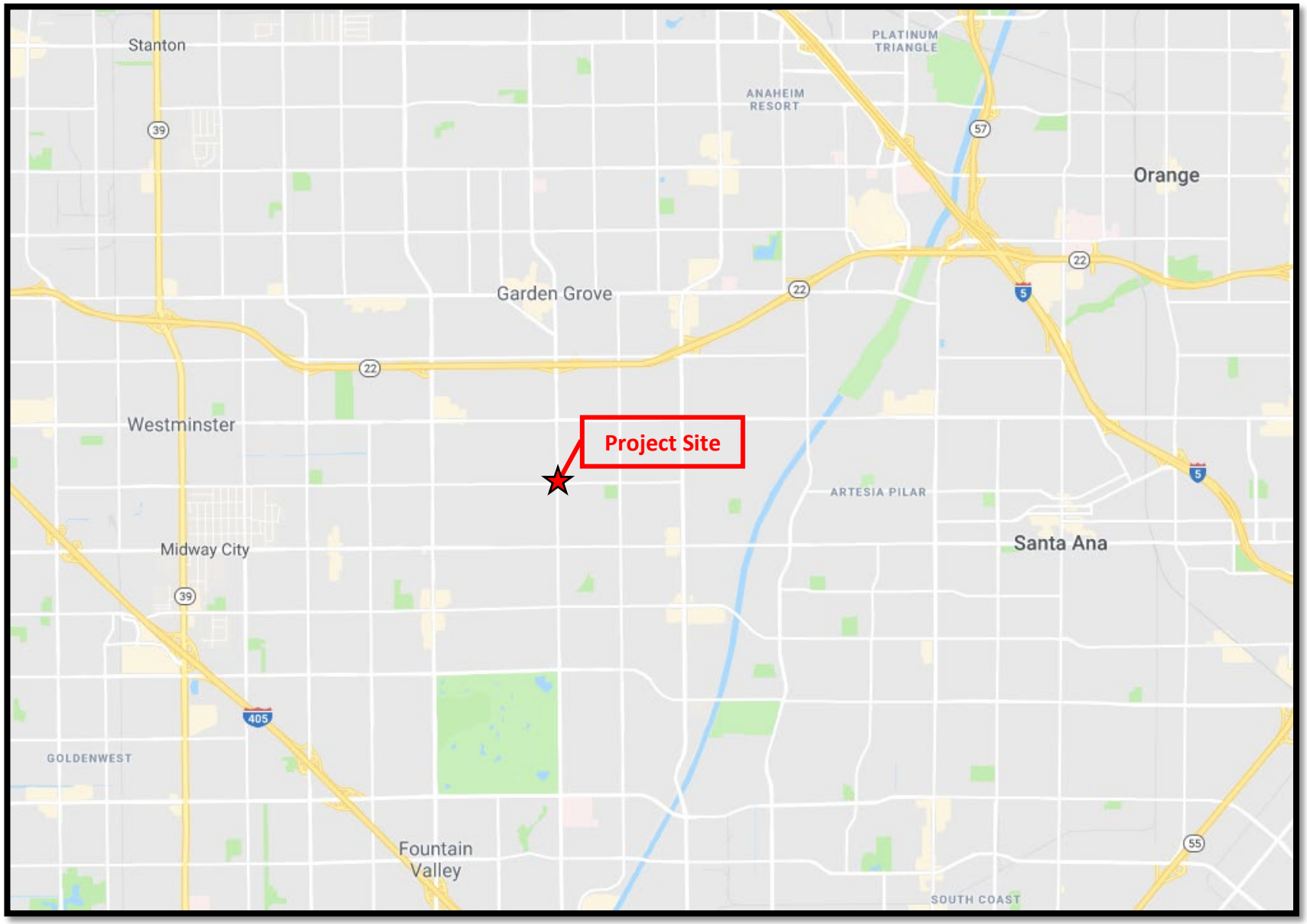


Figure 1: Regional Location Map

Source: Google Maps

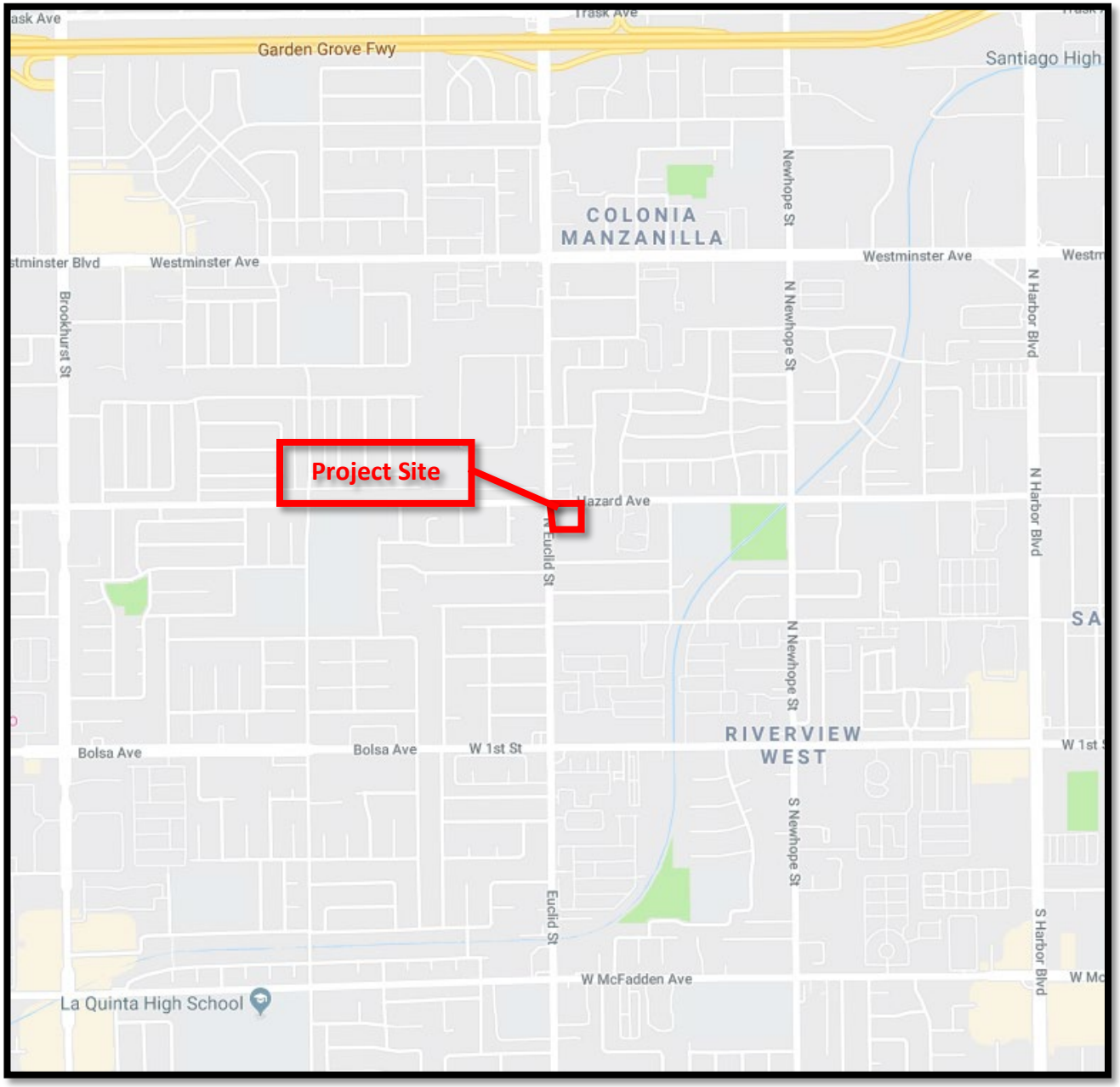
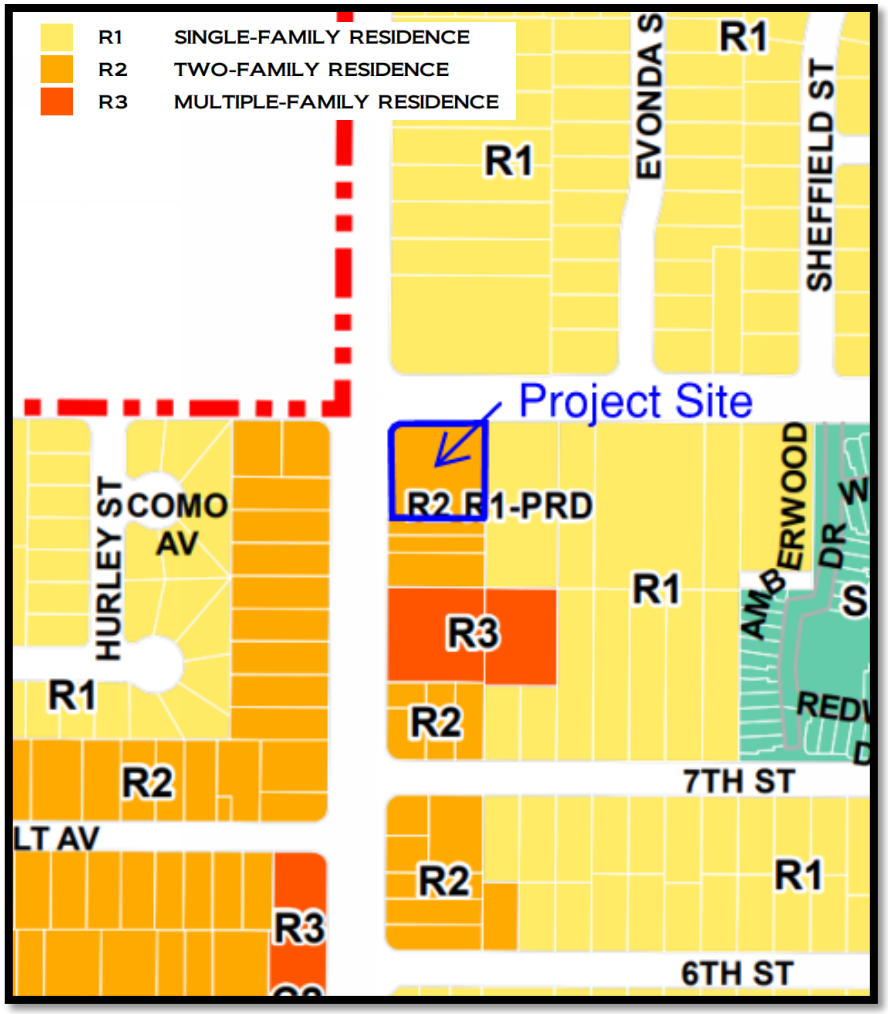


Figure 2: Project Vicinity Map

Source: Google Maps

Land Use Designation



Zoning Designation

Figure 3: General Plan Land Use and Zoning Designation

Source: City of Santa Ana

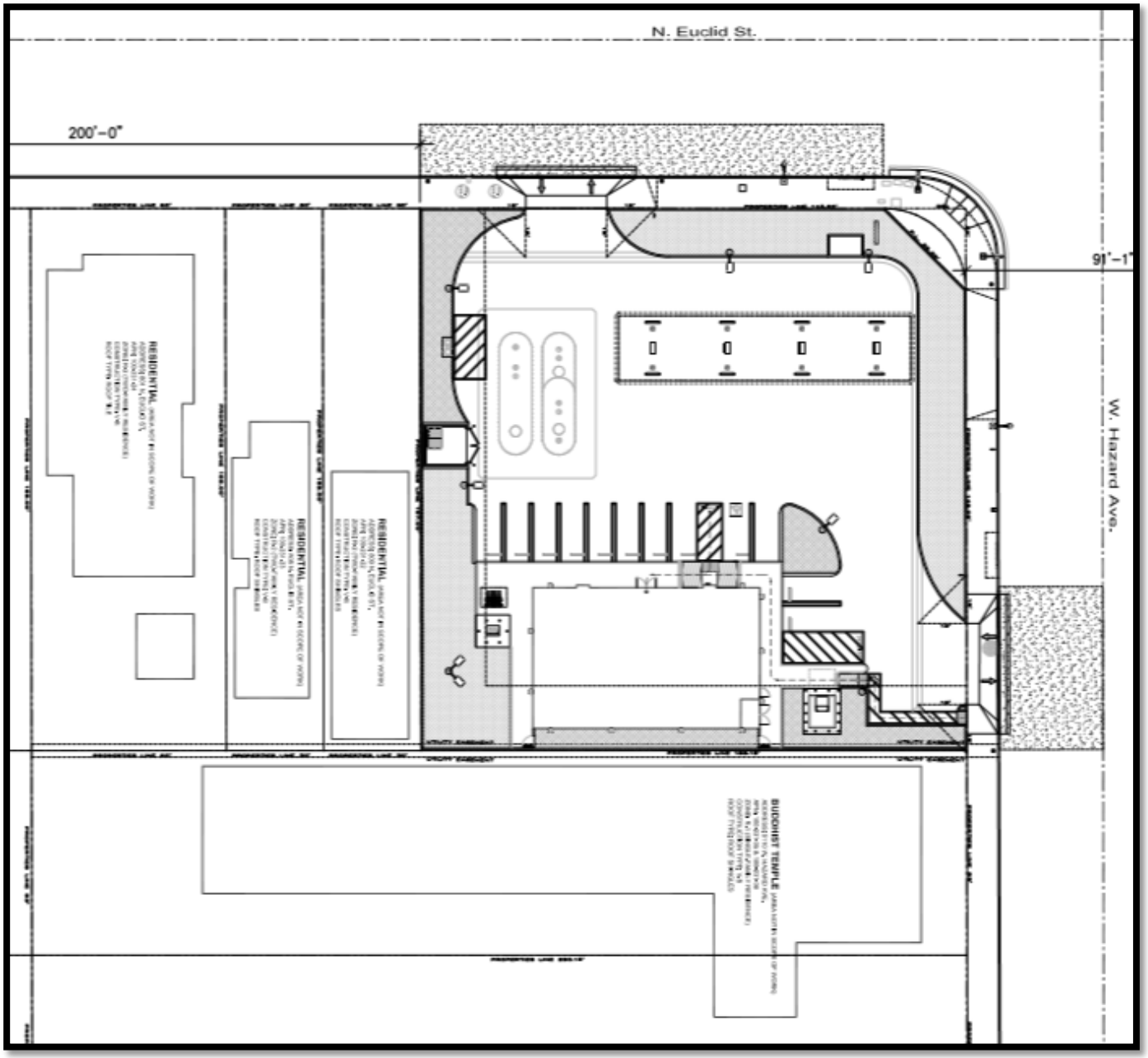


Figure 4: Area Plan

Source: ASi Development

SECTION 3.0 PROJECT DESCRIPTION

3.1 Background

The Project Site is in a predominantly residential portion of the City with a Zoning designation of Two-Family Residential (R-2) and General Plan Land Use designation of General Commercial (GC) (Figure 3). Prior to vacancy, the Project Site was a Shell service station. By 1987, fueling operations ceased at the Project Site and the service station facilities were removed.

3.2 Project Site Location

The Project Site consists of one vacant, previously disturbed lot identified as County of Orange Assessor's Parcel Number (APN) 100-231-01, located on the southeast corner of North Euclid Street and West Hazard Avenue (Figure 2). The Project Site is located on approximately 0.64-acre in the City of Santa Ana, Orange County, California on the U.S Geological Survey (USGS) Anaheim 7.5' topographic quadrangle, within Section 9, Township 5 South, Range 10 West of the San Bernardino Baseline and Meridian. The Project Site is located west of North Newhope Street; east of North Euclid Street; north of Bolsa Avenue and south of West Hazard Avenue. The Project Site is bound by residential uses to the north, south, and west, and a Buddhist Temple to the east (Figure 4).

3.3 Proposed Project

The Applicant proposes to construct a 7-Eleven service station and convenience store with fuel canopy and four (4) fuel pumps which would accommodate up to eight (8) vehicles at a time (**Figure 5** – Conceptual Site Plan). Ancillary improvements would include a lit monument sign displaying fuel prices, underground storage tanks (UST), trash enclosure, a water and air pump equipped with an automated control system that would be turned off between the hours of 10 p.m. and 7 a.m., parking lot, landscaping, utility transformer and undergrounding of overhead utilities, and right-of-way improvements. A biofiltration device would be installed at the northeast end of the property.

The Applicant is requesting a Zone Change on the Project Site from the Zoning designation of Two-Family Residential (R-2) to Community Commercial (C1), consistent with the existing General Plan Land Use designation of General Commercial (GC) (Figure 3).

The Proposed Project involves the construction of a single-story 3,045 SF convenience store (**Figure 6** – *Conceptual Convenience Store Elevations*) and an 1,800 SF fuel canopy (**Figure 7** – *Conceptual Fuel Canopy Elevations*). The fuel canopy includes four (4) fuel pumps that would accommodate up to eight (8) vehicles at one time. Ancillary improvements include a 7'-9" lit monument sign displaying fuel prices (**Figure 8** – *Conceptual Monument Sign*), installation of two (2) 20,000-gallon underground storage tanks (UST) for fuel storage (Figure 3), 200 SF accessible trash enclosure (**Figure 9** – *Conceptual Trash Enclosure*), a water and air pump equipped with an automated control system that would be turned off between the hours of 10 p.m. and 7 a.m., 16

parking spaces including one (1) ADA space, 5,937 SF of landscaped area (**Figure 10** – *Conceptual Landscape Plan*), and a utility transformer and undergrounding of existing overhead utilities (**Figure 11** – *Conceptual Utility Plan*). Rendering for the Proposed Project are depicted in **Figure 12** – *Conceptual Renderings.*

On-site lighting for the Proposed Project would include seven (7) 20-foot site pole lights, lighting associated with the fuel canopy and convenience store (including signage), and the monument sign (**Figure 13** – *Conceptual Photometric Plan*). The monument sign would include electrical display of fuel prices. Additional lighting sources include typical security lighting for parking areas. All lighting would be consistent with the City of Santa Ana Municipal Code Lighting Ordinance. Roof-top mechanical equipment would include two (2) HVAC units, shielded from view by the roof parapet (**Figure 14** – *Conceptual Roof Plan*). Project landscaping would include an addition of 27 trees to the Project Site, resulting in a net total of 26 trees, as one (1) street tree would be removed for the relocated driveway W. Hazard Avenue (Figure 10).

Grading

The Project Site is vacant and on-site soils contain soils that are not suitable to support structures. Grading of the Project Site would include: over-excavation and re-compaction of onsite fill soils beneath buildings to a depth of at least five feet below ground surface and five feet laterally beyond the edge of the foundation; installation of a mat foundation for buildings with a subfloor drainage system; over-excavation and re-compaction of onside fill soils beneath pavement areas to a depth of at least two feet below ground surface; over-excavation and re-compaction of compacted engineered fill for areas where the USTs from the prior gas station use were removed and backfilled; and subgrade anchors and strapping of USTs to prevent tank uplift in the event of groundwater rise. Approximately 60 cubic yards (CY) of soils would be removed to install the underground storage tanks, which would be exported off-site (**Figure 15** – *Conceptual Grading Plan*).

Construction

Building construction, architectural coating, and paving would also occur on the Project Site. Project grading is anticipated to begin in March 2020 with construction commencing in early Summer 2020. Project buildout is expected to be completed by the end of 2020.

Right-of-way improvements would include the installation of two (2) new street lights (one on W. Hazard and one on N. Euclid), relocation of the curb cut on W. Hazard Avenue farther east with removal of an existing street tree (Figure 15), adjustment to the existing curb cut on N. Euclid Street to meet City standards, removal and reconstruction of sidewalks along the W. Hazard frontage to City standards and to include tree wells, reconstruct damaged sidewalk panels along the N. Euclid frontage, and grinding and capping of a minimum of 3-inches on N. Euclid Street.

Operation

Operation of the proposed use would be 24-hours per day, seven (7) days per week. The proposed convenience store would be single-story and include restrooms, sales, office and retail space (**Figure 16** – *Conceptual Floor Plan*). Vehicular access would be provided to the Project Site via two driveways; one (1) on N. Euclid Street and one (1) on W. Hazard Avenue. Fuel tanker trucks would be used to refill the USTs when needed (**Figure 17** – *Proposed Fuel Tanker Path Plan*). Figure 17 shows the path fuel tankers would utilize to enter and exit the Project Site.

The proposed trash enclosure would be located at the southern property line and would have an ADA accessible path of travel. Waste service pickup for the proposed use would involve a single-unit truck (**Figure 18** – *Proposed Trash Truck Path Plan*).

3.4 Other Public Agencies Whose Approval is Required (Responsible or Trustee Agencies):

The Initial Study/Mitigated Negative Declaration prepared for the Euclid-Hazard 7-Eleven Service Station Project would be used as the supporting CEQA environmental documentation for the following approvals and permits:

- South Coast Air Quality Management District
- Santa Ana Regional Water Quality Control Board

3.5 Discretionary Approvals

The Proposed Project would require the following discretionary approvals:

- City Approval of the Initial Study/Mitigated Negative Declaration
- AA-2019-3 Amendment Application for a Zone Change from M-1 to C-2
- Conditional Use Permit CUP No. 2019-21 to allow after-hours operations

3.6 AB 52 - Native American Tribal Consultation

3.6.1 Sacred Lands File Search

The Cultural Resources consultant requested a Sacred Lands File (SLF) records search from the Native American Heritage Commission (NAHC) on August 15, 2019. The NAHC responded on September 5, 2019 indicating that the Project Area is negative for known sacred sites or resources. The NAHC provided a list of 17 Native American contacts that may have interest in consultation for the Proposed Project. The Lead Agency prepared consultation invitation letters to the Native American Tribes on the NAHC list that were emailed on October 24, 2019. The City received a response from one tribe and a summary of the consultation is provided in Section XVII, Tribal Cultural Resources.

3.6.2 Assembly Bill 52

The following Native American tribes have requested notification pursuant to Assembly Bill (AB) 52 from the City of Santa Ana for projects in which the City is the lead agency. Accordingly, the City contacted each of the below listed Native American tribes regarding the Proposed Project

on October 28, 2019. The following Native American tribes requested formal consultation specific to the Proposed Project:

- Gabrieleño Band of Mission Indians-Kizh Nation (consultation requested on November 18, 2019)
- Juaneño Band of Mission Indians – Acjachemen Nation (consultation period closed on November 28, 2019 with no comment)
- La Jolla Band of Luiseno Indians (consultation period closed on November 28, 2019 with no comment)

3.6 Scheduled Public Meetings or Hearings:

IS/MND Public Review January 6, 2020 – January 26, 2020

Planning Commission January 27, 2020

City Council First Reading February 18, 2020

City Council Second Reading March 3, 2020

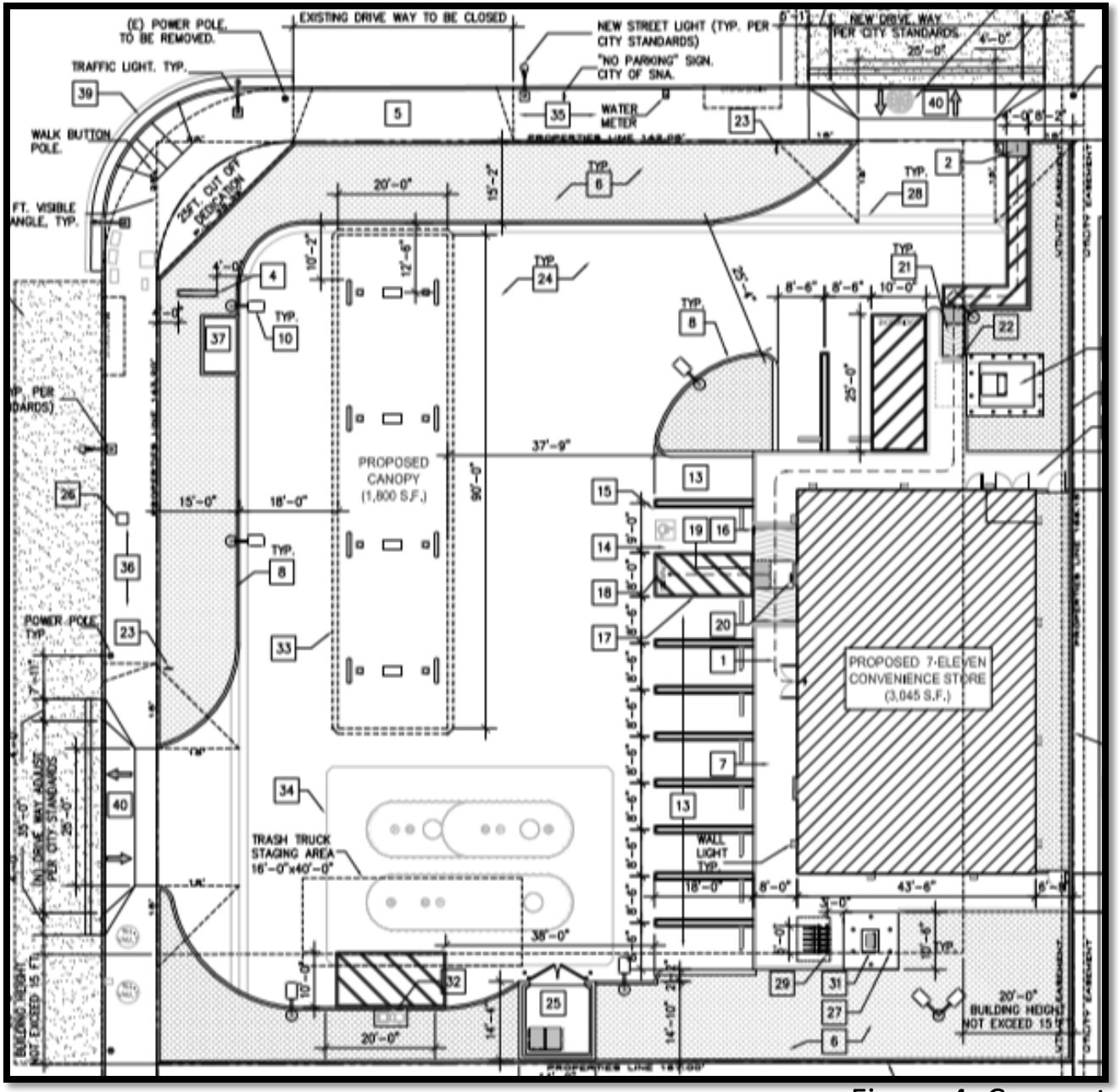
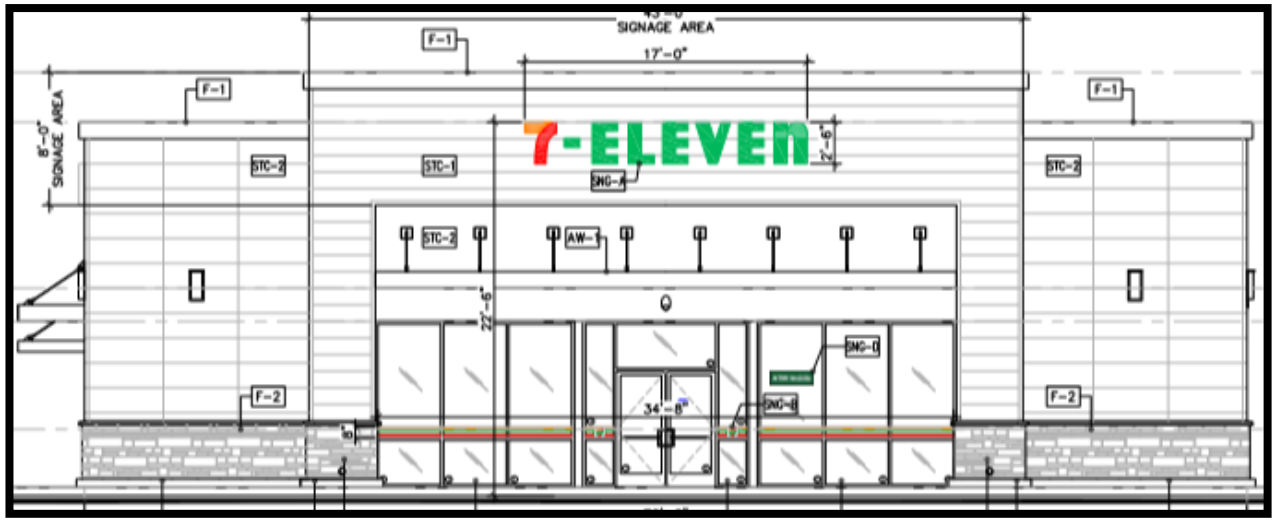
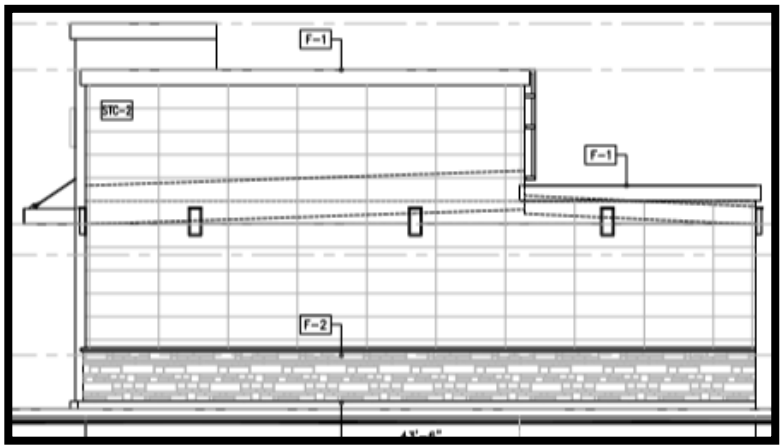


Figure 4: Conceptual Site Plan

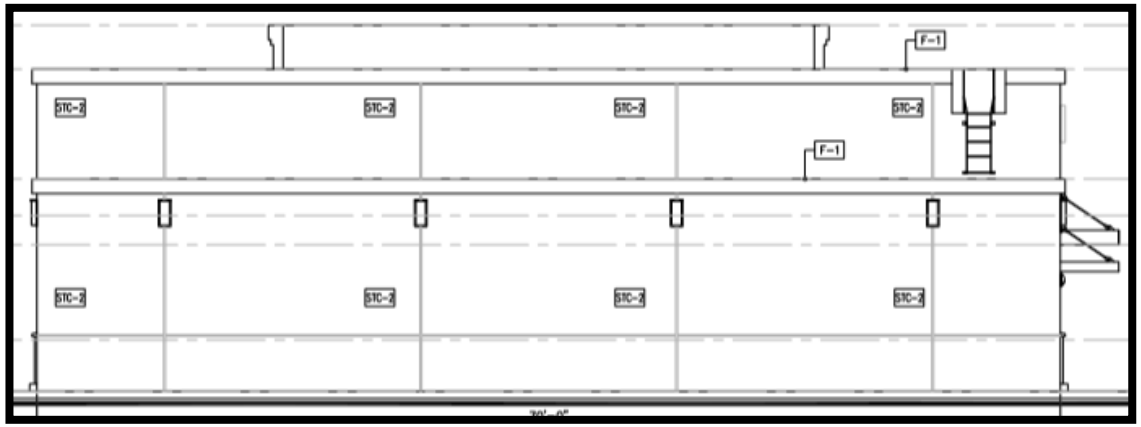
Source: ASi Development



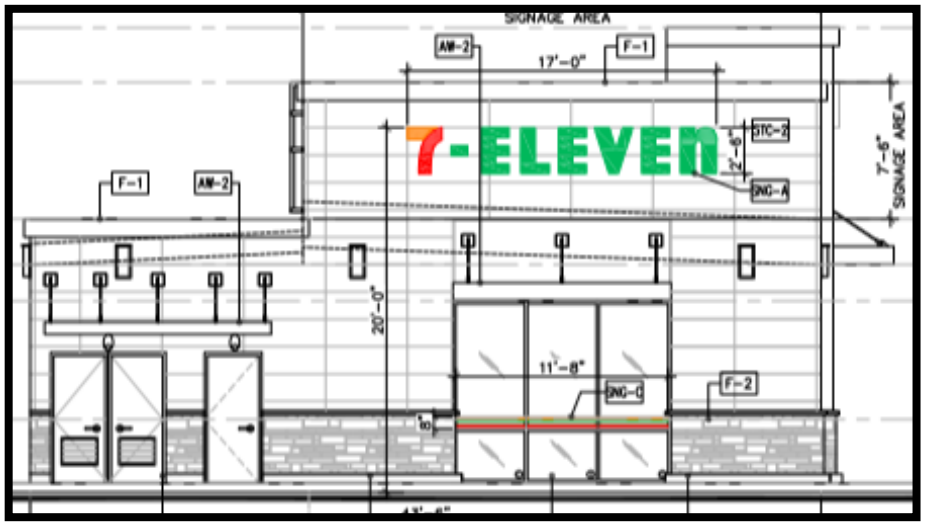
West Elevation



South Elevation



East Elevation



North Elevation

Figure 6: Conceptual Convenience Store Elevations

Source: ASi Development

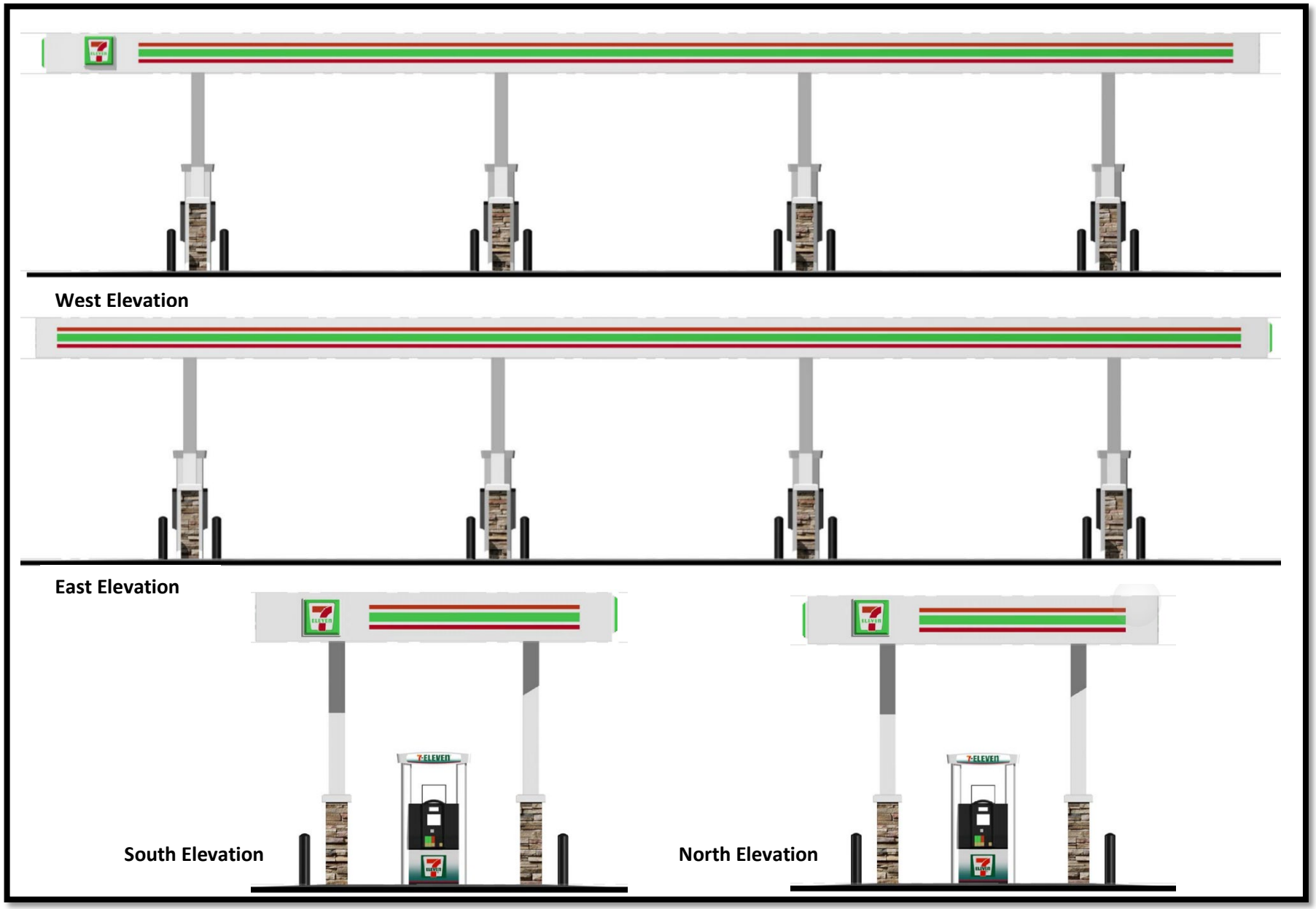


Figure 7: Conceptual Fuel Canopy Elevations

Source: ASi Development

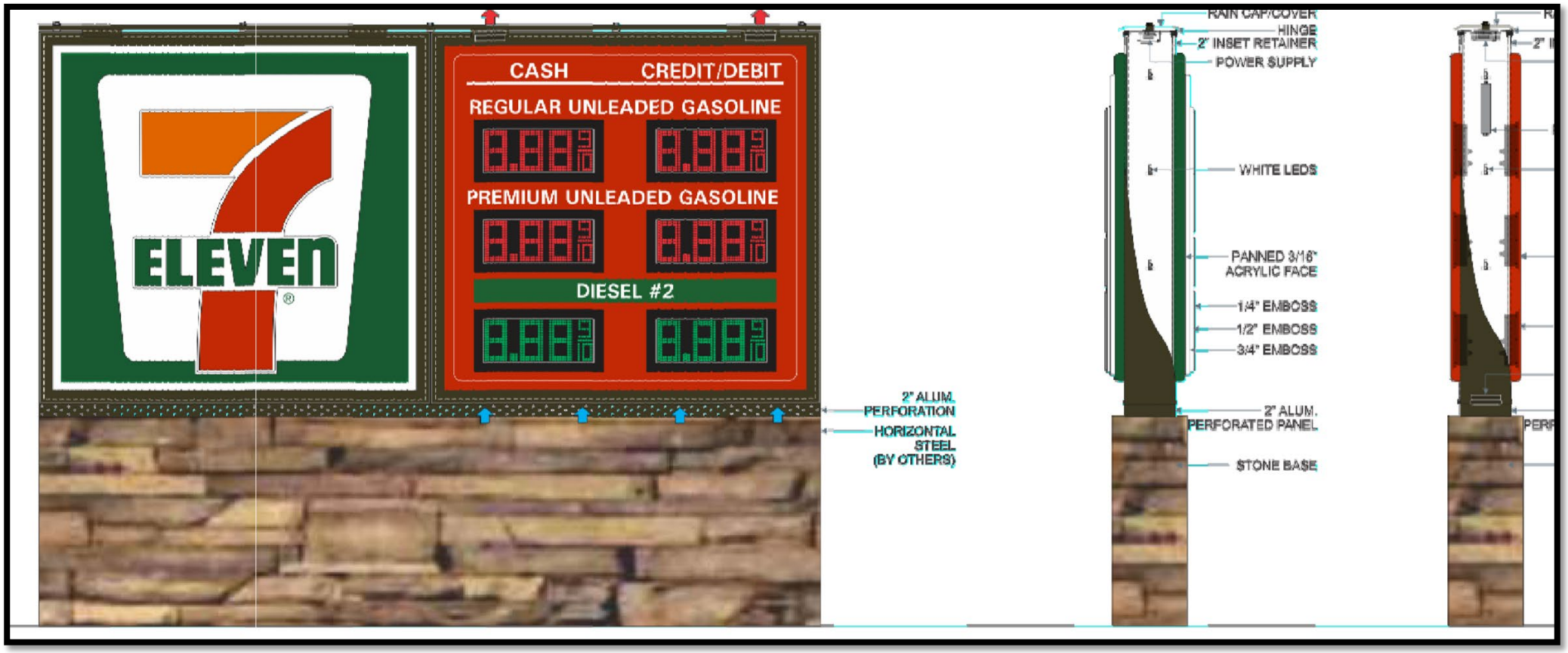


Figure 8: Conceptual Monument Sign

Source: ASi Development

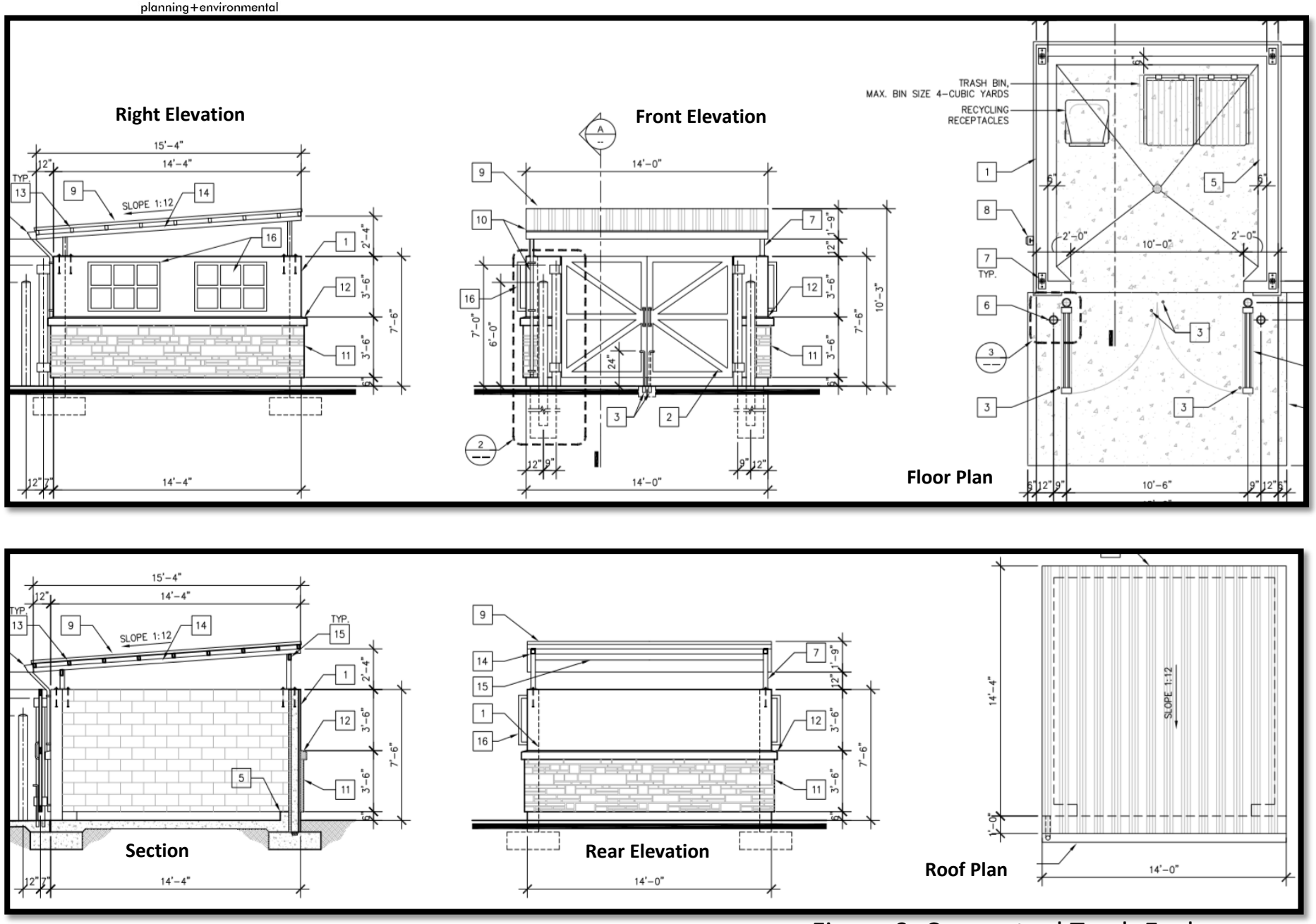


Figure 9: Conceptual Trash Enclosure

Source: ASi Development

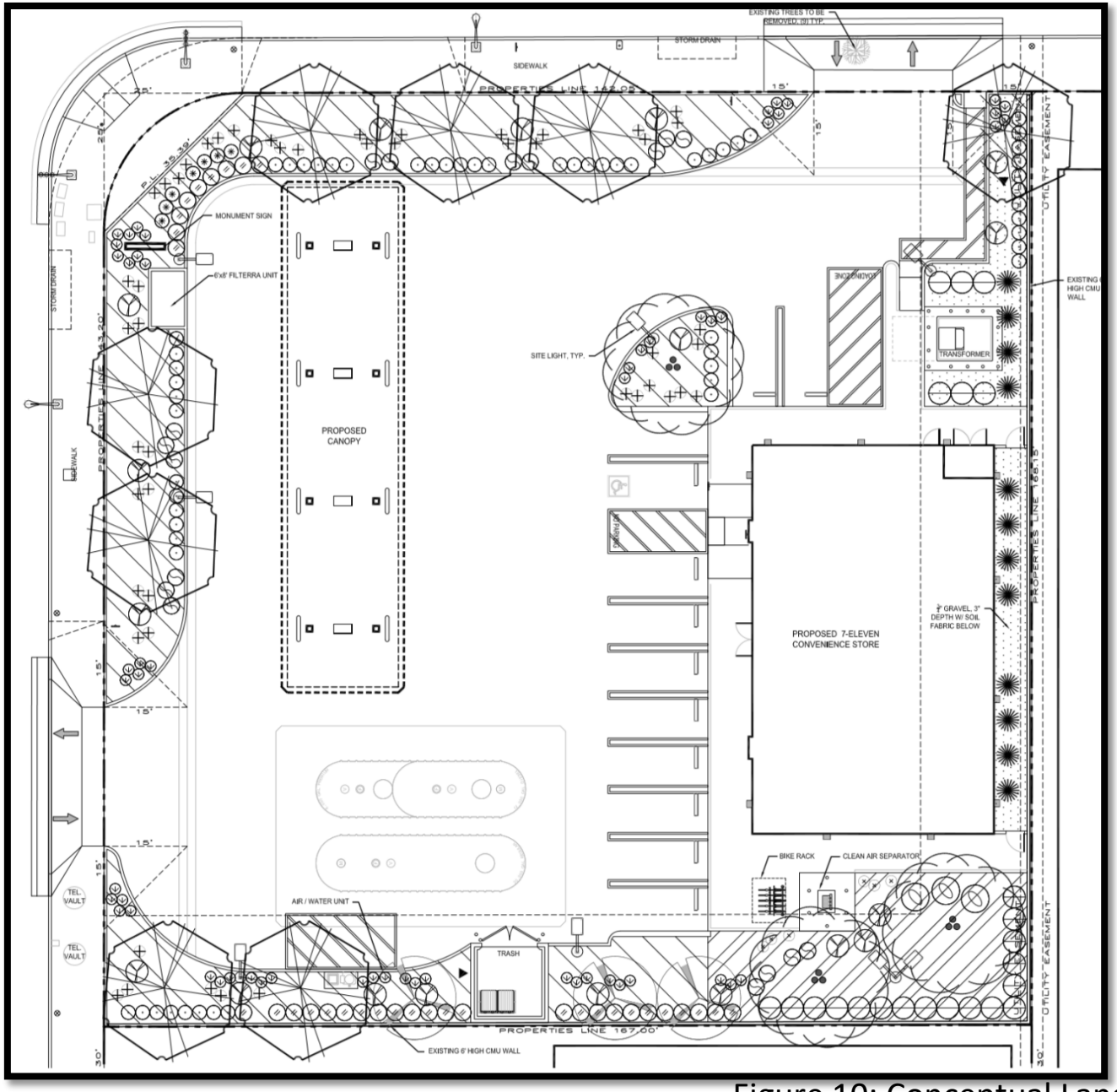


Figure 10: Conceptual Landscape Plan

Source: ASi Development

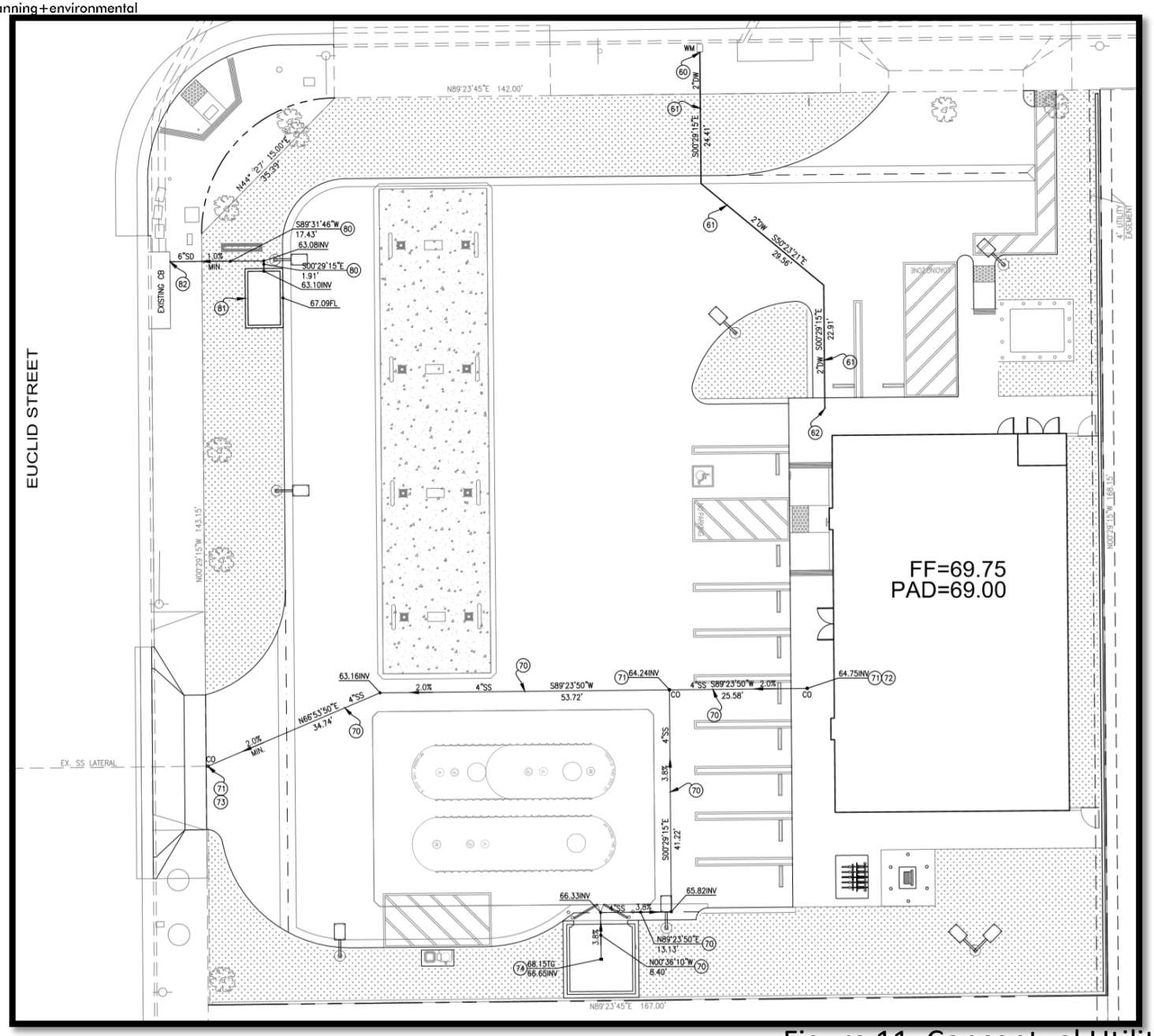


Figure 11: Conceptual Utility Plan

Source: ASi Development

Figure 12: Conceptual Renderings

Source: ASi Development

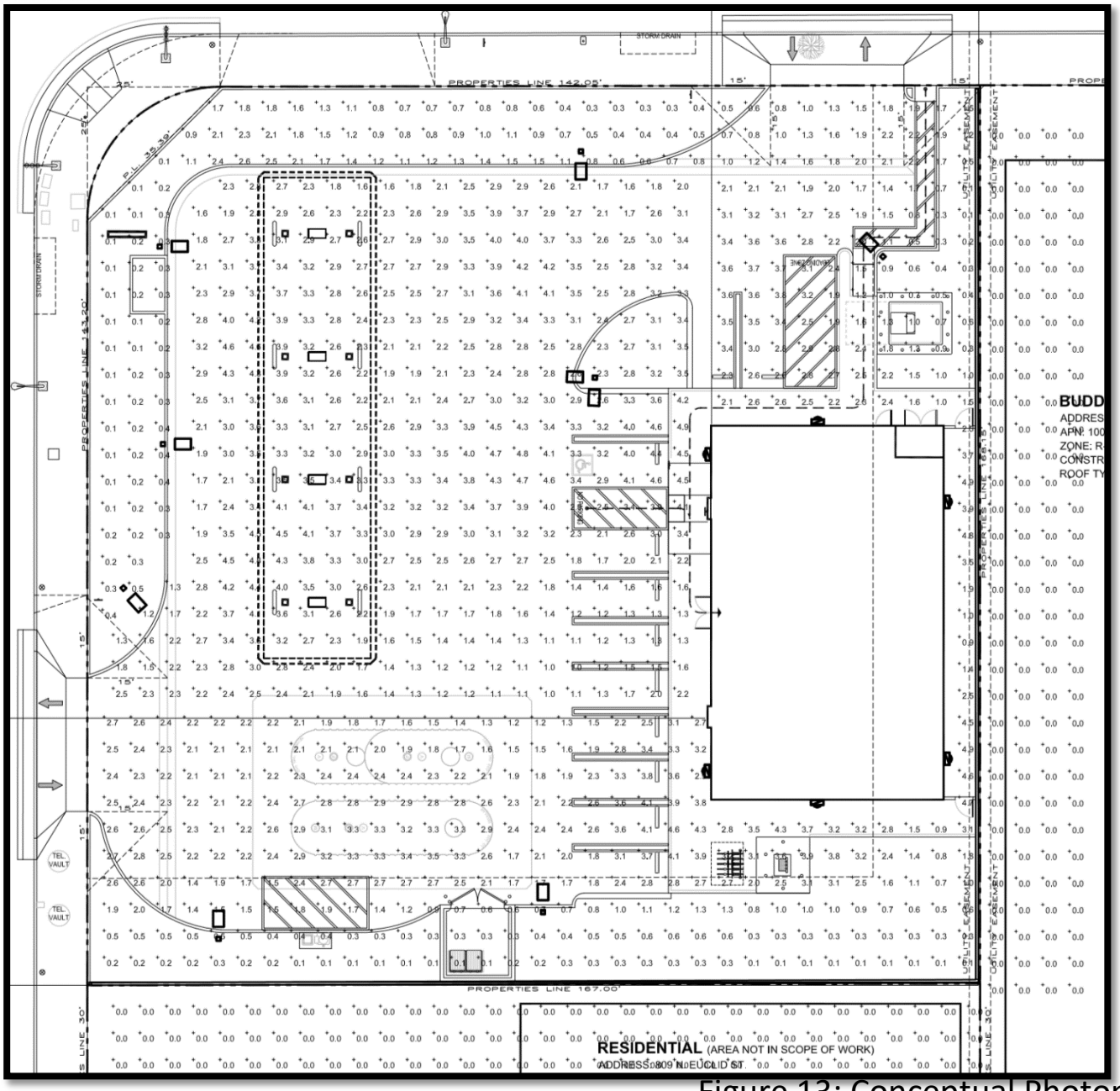


Figure 13: Conceptual Photometric Plan

Source: ASi Development

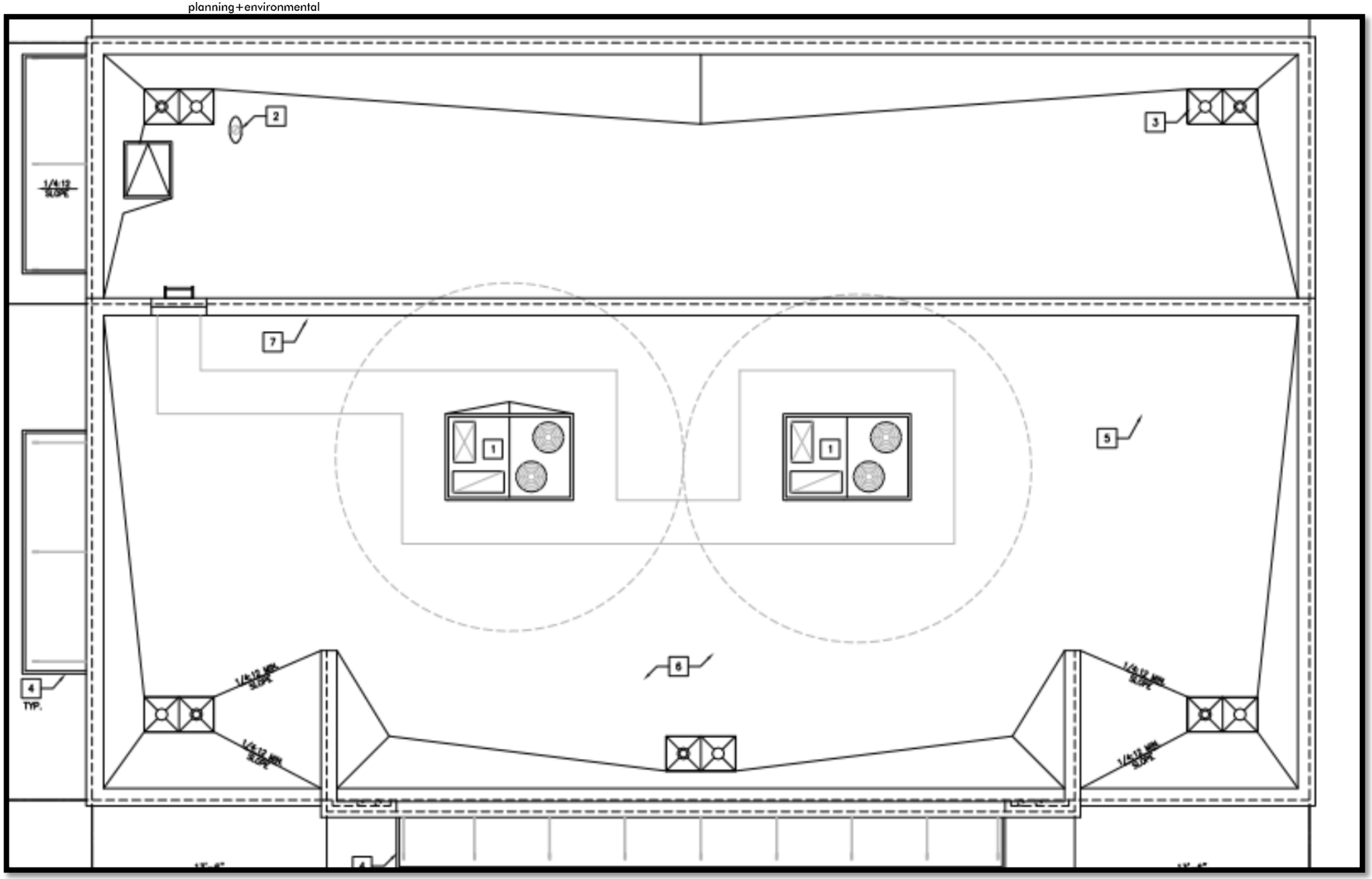


Figure 14: Conceptual Roof Plan

Source: ASi Development

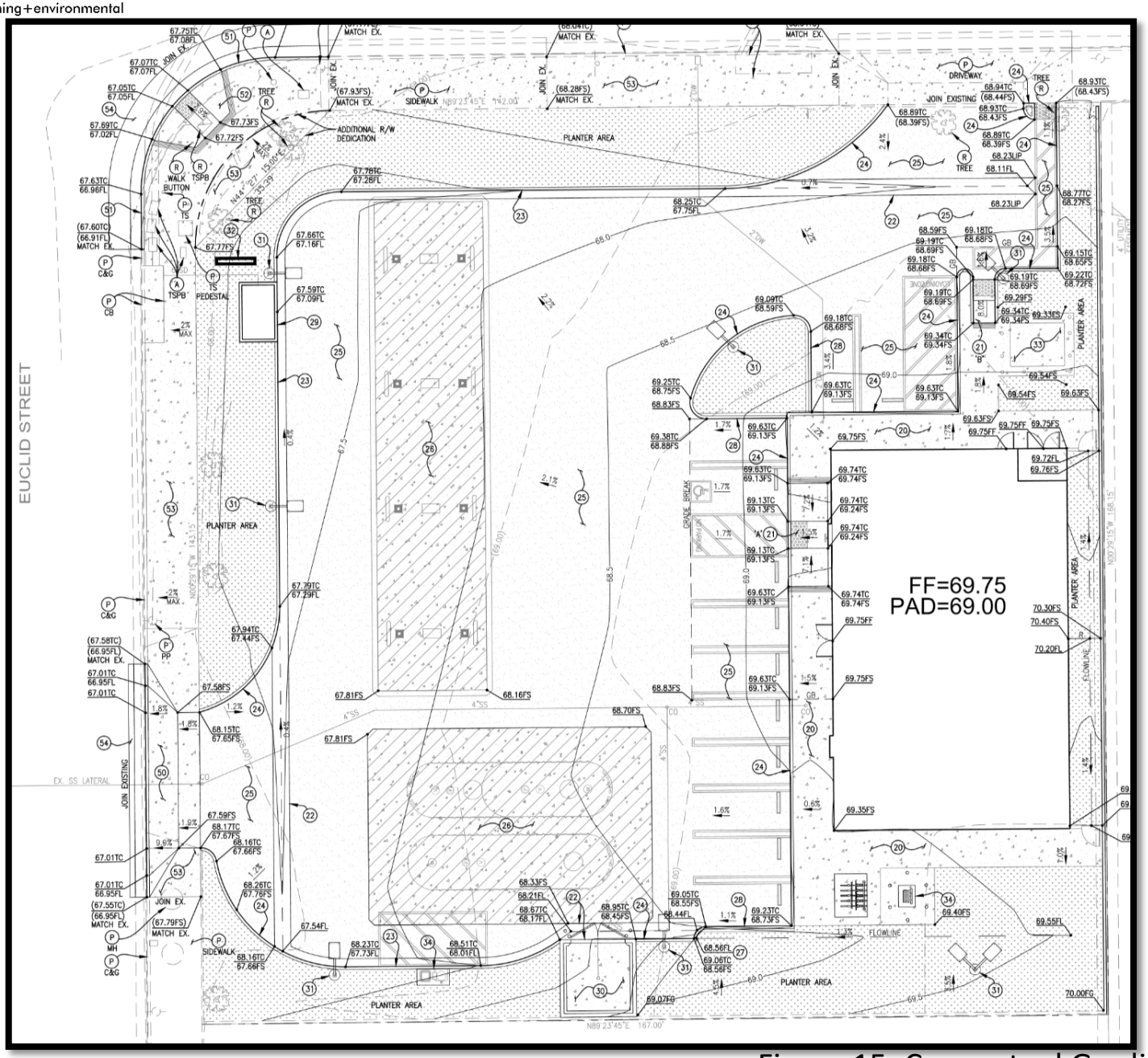


Figure 15: Conceptual Grading Plan

Source: ASi Development

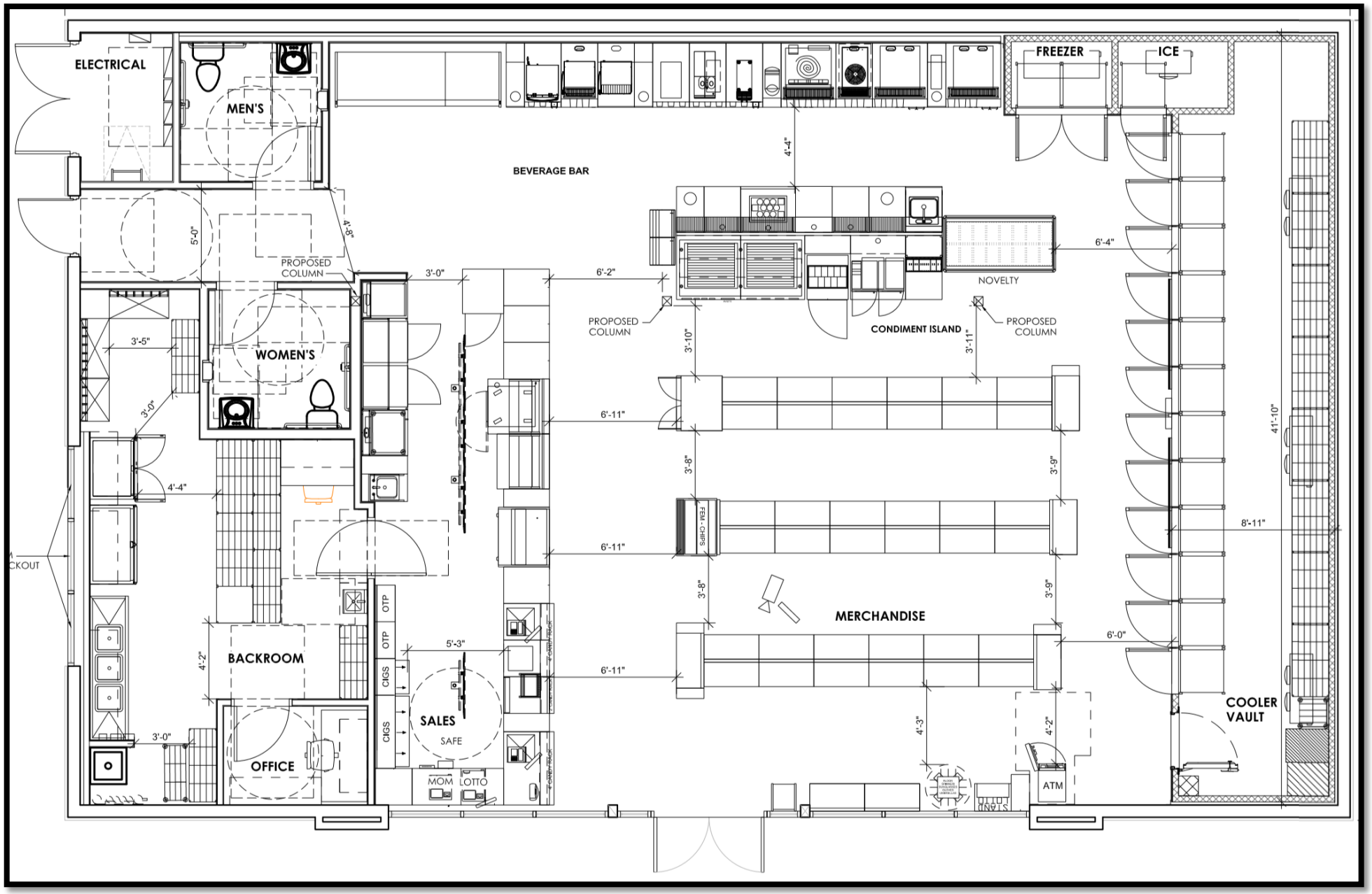


Figure 16: Conceptual Floor Plan

Source: ASi Development

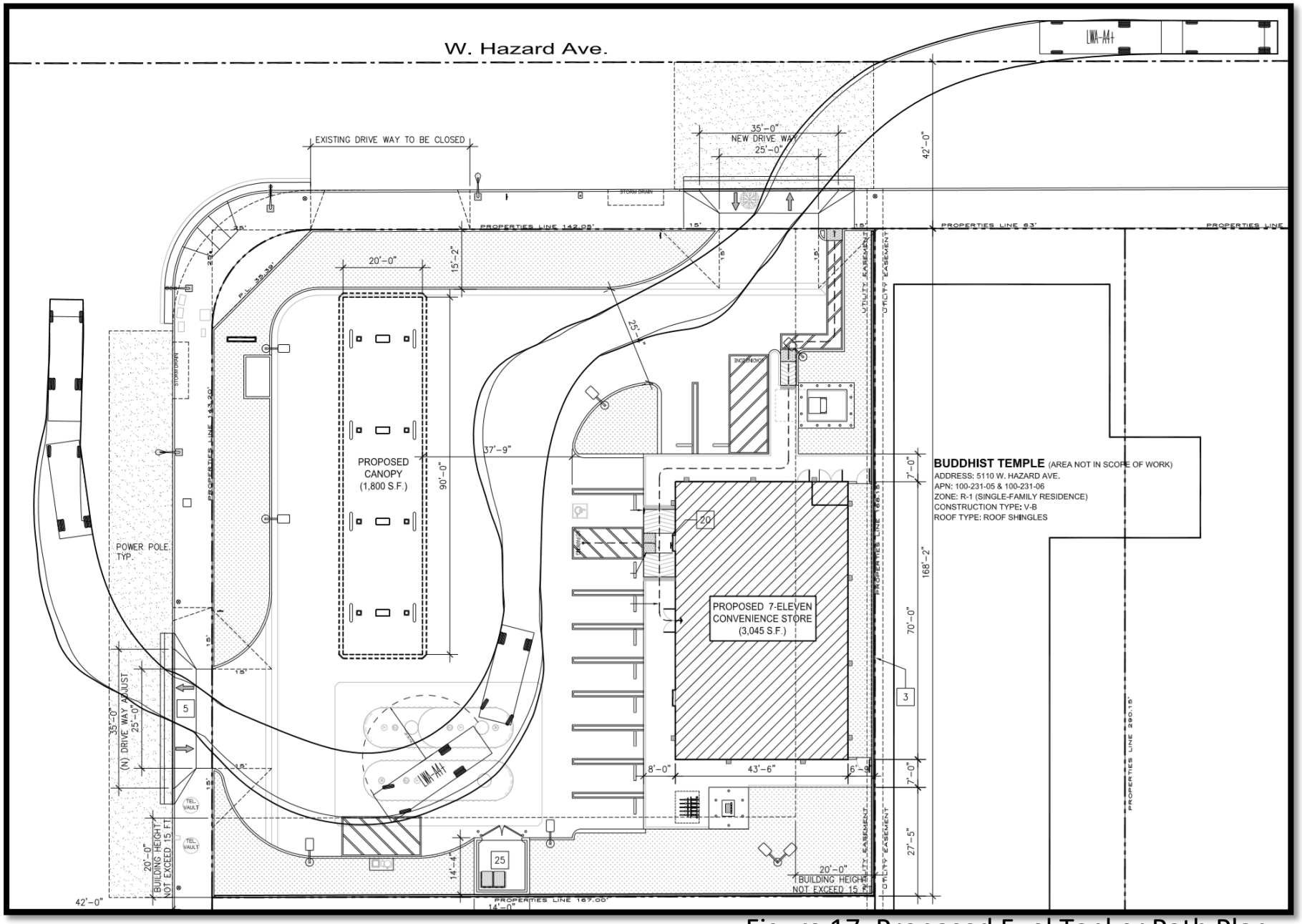


Figure 17: Proposed Fuel Tanker Path Plan

Source: ASi Development

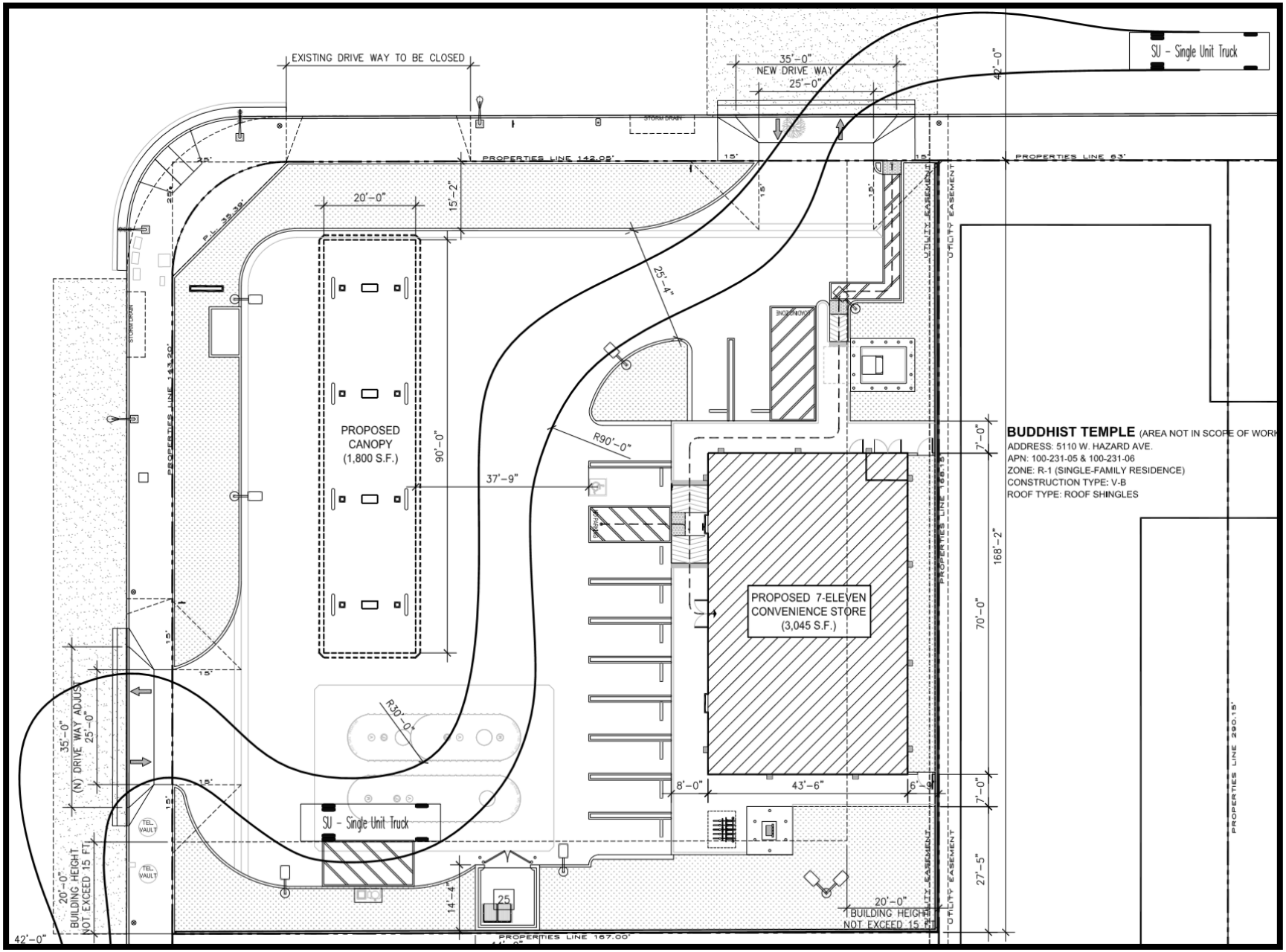


Figure 18: Proposed Trash Truck Path Plan

Source: ASi Development

SECTION 4.0 ENVIRONMENTAL CHECKLIST

4.1 Environmental Factors Potentially Affected

The project would not affect any environmental factors resulting in a Potentially Significant Impact or Potentially Significant Impact Unless Mitigated. A summary of the environmental factors potentially affected by this project, consisting of a Potentially Significant Impact or Potentially Significant Impact Unless Mitigated, include:

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

4.2 Determination: On the Basis of this Initial Evaluation:

1.	I find that the project could not have a significant effect on the environment, and a NEGATIVE DECLARATION would be prepared.	☐
2.	I find that although the Proposed Project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION would be prepared.	☒
3.	I find the Proposed Project may have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.	☐
4.	I find that the Proposed Project may have a "potentially significant impact" or "potentially significant unless mitigated impact" on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.	☐
5.	I find that although the Proposed Project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or Negative Declaration pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or Negative Declaration, including revisions or mitigation measures that are imposed upon the Proposed Project, nothing further is required.	☐

_____ _____

Ivan Orozco, Assistant Planner II Date

4.3 Evaluation of Environmental Impacts:

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

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

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

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

5. Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063 (c)(3)(D). In this case, a brief discussion should identity the following:
    a. Earlier Analysis Used. Identify and state where they are available for review.
    b. Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
    c. Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated", describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

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

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

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

9. The explanation of each issue should identify:
    a. The significance criteria or threshold, if any, used to evaluate each question; and
    b. The mitigation measure identified, if any, to reduce the impact to less than significance.

SECTION 5.0 ENVIRONMENTAL ANALYSIS

5.1 AESTHETICS

Except as provided in Public Resources Code Section 21099, would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
(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 views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning or 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?	☐	☐	☒	☐

Impact Analysis

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

Significance Determination: Less Than Significant Impact.

The City's General Plan Scenic Corridor Element, Exhibit 4 – *Scenic Corridors Plan* identifies scenic areas within the City of Santa Ana. The intersection of N. Euclid Street and W. 1st Street is designated as a major city entry and is located over 2,000-feet to the south of the Project Site. The Proposed Project would involve the construction of a 25'-0" high convenience store and 17'-6" high fuel canopy, both within the 35-foot height limits prescribed for C1 zone. The proposed convenience store and fuel canopy would be set back from N. Euclid Street by 108'-9" and 33'-0", respectively, and from W. Hazard Avenue by 47'-2" and 15'-2", respectively. Therefore, potential impacts associated with a scenic vista would be less than significant and no mitigation would be required.

Mitigation Measures: No Mitigation Required.

Significance Determination After Mitigation: Less Than Significant Impact.

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

Significance Determination: Less Than Significant Impact.

The City's General Plan Scenic Corridor Element, as well as California's Scenic Highway Mapping System, do not designate any county or state scenic highways within the vicinity of the Project Site[1]. The Project Site is surrounded by existing residential uses and Buddhist Temple. The Proposed Project would remove an existing tree in the public right-of-way to allow for a new curb cut and driveway on W. Hazard Avenue; however, the Proposed Project would result in three new 24-inch box Goldenrain trees on the W. Hazard Avenue frontage (Figure 10). There are no historic buildings or rock outcroppings located on the Project Site. Therefore, potential impacts associated with scenic resources within a state scenic highway would be less than significant and no mitigation would be required.

Mitigation Measures: No Mitigation Required.

Significance Determination After Mitigation: Less Than Significant Impact.

c) Would the project substantially degrade the existing visual character or quality of the site and its surroundings? If the project is in an urbanized area, would the project conflict with applicable zoning or other regulations governing scenic quality?

Significance Determination: Less Than Significant Impact.

The Project Site is an existing vacant parcel. The surrounding uses include single-family and multiple-family residential buildings and Buddhist Temple. The Proposed Project would involve the construction of a 25'-0" high convenience store and 17'-6" high fuel canopy. The proposed convenience store and fuel canopy would be setback from N. Euclid Street by 108'-9" and 33'-0", respectively, and from W. Hazard Avenue by 47'-2" and 15'-2", respectively. The Applicant is requesting a change in the zoning of the Project Site from Two-Family Residential (R2) to Community Commercial (C1) to be consistent with the existing General Plan Land Use designation of General Commercial. The zone change would require the Proposed Project be constructed to the C1 standards, which include a maximum height of 35-feet for any proposed buildings. The Proposed Project would be consistent with all development standards outlined in the C1 zone, including, but not limited to setbacks and lot coverage. Therefore, potential impacts associated with the visual character or quality of the site and its surroundings would be less than significant and no mitigation would be required.

Mitigation Measures: No Mitigation Required.

Significance Determination After Mitigation: Less Than Significant Impact.

[1] https://dot.ca.gov/programs/design/lap-landscape-architecture-and-community-livability/lap-liv-i-scenic-highways Accessed October 1, 2019

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

Significance Determination: Less Than Significant Impact.

The Project Site is a vacant parcel surrounded by existing development. Surrounding existing light sources include a streetlight at the N. Euclid and W. Hazard intersection and the surrounding residential uses to the north, south, west, and the Buddhist Temple to the east. Light sources from the Proposed Project would include two (2) new street lights (one on W. Hazard and one on N. Euclid), seven (7) 20-foot site pole lights, lighting associated with the fuel canopy and convenience store (including signage), and the monument sign. The monument sign would include electrical display of fuel prices.

All project lighting would be subject to the City of Santa Ana Design Guidelines, including Chapter 9 – Commercial Design Guidelines and Chapter 14 – Signage Guidelines[2], which outline lighting standards for commercial projects and includes direction on minimizing glare onto adjoining properties (Section 9.7 of Chapter 9). All on-site lighting for the Proposed Project would be shielded and directed so that no lighting trespasses onto the adjacent residential properties and Buddhist Temple (Figure 13). The proposed monument sign would comply with Section 14.3.5. of Chapter 14, which includes preventing glare and spillover into residential areas (Figure 13) and the Sign Regulations of the Zoning Ordinance, Section 41-850 through 41-1000. Therefore, potential impacts associated with new sources of substantial light or glare would be less than significant and no mitigation would be required.

Mitigation Measures: No Mitigation Required.

Significance Determination After Mitigation: Less Than Significant Impact.

[2] https://www.santa-ana.org/pb/planning-division/citywide-design-guidelines
Accessed October 2, 2019

5.2 AGRICULTURE & FOREST RESOURCES

Would the project:		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
(a)	Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
(b)	Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
(c)	Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒
(d)	Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
(e)	Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?	☐	☐	☐	☒

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agricultural farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and the forest carbon measurement methodology provided in the Forest Protocols adopted by the California Air Resource Board.

Impact Analysis

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

Significance Determination: No Impact

According to the California Department of Conservation Farmland Mapping and Monitoring Program[3], the Project Site is considered "Urban and Built-Up Land" and is not considered Prime, Unique or

[3] https://www.conservation.ca.gov/dlrp/fmmp/Pages/Orange.aspx Accessed October 2, 2019

Farmland of Statewide Importance. There is no Prime, Unique or Farmland of Statewide Importance located adjacent to the Project Site. The closest site designated Prime Farmland per the Farmland Mapping and Monitoring Program is a portion of Mile Square Regional Park located over 1.5 miles to the south. Therefore, no impacts associated with the conversion of Prime, Unique or Farmland of Statewide Importance to non-agricultural use would occur and no mitigation is required.

Mitigation Measures: No Mitigation Required.

Significance Determination After Mitigation: No Impact.

b) Would the project conflict with existing zoning for agriculture use, or a Williamson Contract?

Significance Determination: No Impact.

The Williamson Act is a means to restrict the uses of agricultural and open space lands to farming and ranching uses during the length of the contract period. The Williamson Act Program was also envisioned as a way for local governments to integrate the protection of open space and agricultural resources into their overall strategies for planning urban growth patterns. To this end, three principal objectives were originally outlined: 1) protection of agricultural resources, 2) preservation of open space, and 3) promotion of efficient urban growth patterns. According to the California Department of Conservation, the Project Site and its surrounding area is considered urban and built-up land[4]. There are no Williamson Contracts for or adjacent to the Project Site. The Project Site and adjacent parcels are not zoned or designated as an agricultural land use. Therefore, no impacts associated with conflict of existing zoning for agricultural use or a Williamson Contract would occur and no mitigation would be required.

Mitigation Measures: No Mitigation required.

Significance Determination After Mitigation: No Impact.

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

Significance Determination: No Impact.

Forest land is defined as land that can support 10-percent native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits[5]. Timberland is defined as land, other than land owned by the federal government and land designated by the board as experimental forest land, which is available for, and

[4] https://maps.conservation.ca.gov/DLRP/CIFF/ Accessed October 3, 2019

[5] https://leginfo.legislature.ca.gov/faces/codes_displaySection.xhtml?sectionNum=12220.&lawCode=PRC Accessed October 3, 2019

capable of, growing a crop of trees of a commercial species used to produce lumber and other forest products including Christmas trees[6]. Timberland production zone is defined as an area which has been zoned pursuant to Section 51112 or 51113 and is devoted to and use for growing and harvesting timber, or for growing and harvesting timber and compatible uses, including, but not limited to management for fish and wildlife habitat or hunting and fishing; grazing; a residence or other structure necessary for the management of land zoned as timberland production[7].

The Project Site is not zoned for or designated as forest land, timberland, or as a timberland production zone, pursuant to the City's General Plan Land Use Element or Zoning Ordinance. Development of the Project Site pursuant to the proposed design would not result in any conflicts with other property zoned as forest land, timberland, or timberland production zones, or would it cause rezoning of forest land, timberland, or timberland production zones. Therefore, no impacts associated with the conflict of existing zoning for, or cause the rezoning of, forest land, timberland, or timberland production zones would occur and no mitigation would be required.

Mitigation Measures: No Mitigation Required.

Significance Determination After Mitigation: No Impact.

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

Significance Determination: No Impact.

Forest land is defined as land that can support 10-percent native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits[8]. The Project Site does not include any land designated as forest land, nor do any surrounding parcels. Therefore, the conversion of forest land to non-forest land would not occur as a part of this project and no mitigation would be required.

Mitigation Measures: No Mitigation Required.

Significance Determination After Mitigation: No Impact.

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[6] https://leginfo.legislature.ca.gov/faces/codes_displaySection.xhtml?sectionNum=4526.&lawCode=PRC Accessed October 3, 2019

[7] https://leginfo.legislature.ca.gov/faces/codes_displaySection.xhtml?sectionNum=51104.&lawCode=GOV Accessed October 3, 2019

[8] https://leginfo.legislature.ca.gov/faces/codes_displaySection.xhtml?sectionNum=12220.&lawCode=PRC Accessed October 3, 2019

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

Significance Determination: No Impact.

The Project Site contains no agricultural resources or farmland which would be converted as a result of the Proposed Project. The Proposed Project would result in a Zoning designation change; however, the Project Site is not zoned for agriculture or considered Farmland[9] as the existing zoning is Two-Family Residential (R2) and the proposed zoning is Community Commercial (C1). The surrounding area is built-up with residential uses. No surrounding parcels are zoned farmland or agricultural. Therefore, no impacts involving other changes in the existing environment which, due to their location or nature could result in conversion of Farmland to non-agriculture use, would occur as a part of this project and no mitigation would be required.

Mitigation Measures: No Mitigation Required.

Significance Determination After Mitigation: No Impact.

[9] https://www.conservation.ca.gov/dlrp/fmmp/Pages/Orange.aspx Accessed October 3, 2019

5.3 AIR QUALITY

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
(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?	☐	☐	☒	☐

An Air Quality, Energy, and Greenhouse Gas Emissions Impact Analysis was completed to determine potential impacts to air quality associated with the development of the Proposed Project (Appendix A – *Air Quality, Energy, and Greenhouse Gas Emissions Impact Analysis, 813 N Euclid Street Gas Station Project,* Vista Environmental, October 4, 2019). The results of the analysis are based on CalEEMod version 2016.3.2.

Regional Air Quality

Many air quality impacts that derive from dispersed mobile sources, which are the dominate pollution generators in the Air Basin, often occurs hours later and miles away after photochemical processes have converted primary exhaust pollutants into secondary contaminants such as ozone. The incremental regional air quality impact of an individual project is generally very small and difficult to measure. Therefore, SCAQMD has developed significance thresholds based on the volume of pollution emitted rather than on actual ambient air quality because the direct air quality impact of a project is not quantifiable on a regional scale. The SCAQMD CEQA Handbook states that any project in the Air Basin with daily emissions that exceed any of the identified significance thresholds should be considered as having an individually and cumulatively significant air quality impact. For the purposes to this air quality impact analysis, a regional air quality impact would be considered significant if emissions exceed the SCAQMD significance thresholds identified in **Table 1** - *SCAQMD Regional Criteria Pollutant Emission Thresholds of Significance.*

Table 1 – SCAQMD Regional Criteria Pollutant Emission Thresholds of Significance

	Pollutant Emissions (pounds/day)						
	VOC	NOx	CO	SOx	PM10	PM2.5	Lead
Construction	75	100	550	150	150	55	3
Operation	55	55	550	150	150	55	3

Source: http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf?sfvrsn=2

Local Air Quality

Project-related construction air emissions may have the potential to exceed the State and Federal air quality standards in the project vicinity, even though these pollutant emissions may not be significant enough to create a regional impact to the Air Basin. In order to assess local air quality impacts the SCAQMD has developed Localized Significant Thresholds (LSTs) to assess the project-related air emissions in the project vicinity. SCAQMD has also provided *Final Localized Significance Threshold Methodology* (LST Methodology), July 2008, which details the methodology to analyze local air emission impacts. The LST Methodology found that the primary emissions of concern are NO_2, CO, PM10, and PM2.5.

The LST Methodology provides Look-Up Tables with different thresholds based on the location and size of the project site and distance to the nearest sensitive receptors. The Project Site is located in Air Monitoring Area 17, which covers the central portion of Orange County. The Look-Up Tables provided in the LST Methodology include project site acreage sizes of 1-acre, 2-acres and 5-acres. The 1-acre project site values in the Look-Up Tables have been utilized in this analysis, since that is the nearest size available for the 00.64-acre Project Site. The nearest offsite sensitive receptors include the multi-family homes located adjacent to the south side of the Project Site and the Buddhist temple located adjacent to the east side of the Project Site. According to LST Methodology, any receptor located closer than 25 meters (82 feet) shall be based on the 25 meter thresholds. **Table 2 -** *SCAQMD Local Air Quality Thresholds of Significance* below shows the LSTs for NO_2, PM10 and PM2.5 for both construction and operational activities.

Table 2 – SCAQMD Local Air Quality Thresholds of Significance

Activity	Allowable Emissions (pounds/day)[1]			
	NOx	CO	PM10	PM2.5
Construction	81	485	4	3
Operation	81	485	1	1

Notes:
[1] The nearest offsite sensitive receptors include the multi-family homes located adjacent to the south side of the Project Site and the Buddhist temple located adjacent to the east side of the Project Site. According to SCAQMD methodology, all receptors closer than 25 meters are based on the 25 meter threshold.
Source: Calculated from SCAQMD's Mass Rate Look-up Tables for one acre in Air Monitoring Area 17, Central Orange County.

Toxic Air Contaminants

According to the SCAQMD CEQA Handbook, any project that has the potential to expose the public to toxic air contaminants in excess of the following thresholds would be considered to have a significant air quality impact:

- If the Maximum Incremental Cancer Risk is 10 in one million or greater; or
- Toxic air contaminants from the proposed project would result in a Hazard Index increase of 1 or greater.

In order to determine if the proposed project may have a significant impact related to toxic air contaminants (TACs), the *Health Risk Assessment Guidance for Analyzing Cancer Risks from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis*, (Diesel Analysis) prepared by SCAQMD,

August 2003, recommends that if the proposed project is anticipated to create TACs through stationary sources or regular operations of diesel trucks on the Project Site, then the proximity of the nearest receptors to the source of the TAC and the toxicity of the hazardous air pollutant (HAP) should be analyzed through a comprehensive facility-wide health risk assessment (HRA).

Odor

The SCAQMD CEQA Handbook states that an odor impact would occur if the proposed project creates an odor nuisance pursuant to SCAQMD Rule 402, which states:

> "A person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.
>
> The provisions of this rule shall not apply to odors emanating from agricultural operations necessary for the growing of crops or the raising of fowl or animals."

If the proposed project results in a violation of Rule 402 with regards to odor impacts, then the proposed project would create a significant odor impact.

Impact Analysis

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

Significance Determination: Less Than Significant Impact.

The Proposed Project would consist of a zone change and the construction of a service station with a 3,045 SF convenience store, 1,800 SF fuel canopy with four (4) fuel pumps that would service up to eight (8) vehicles at one time. The Proposed Project would also include ancillary improvements associated with the commercial use, such as landscaping, trash enclosure, signage (including monument sign) and site lighting. The Proposed Project would not conflict with or obstruct implementation of the SCAQMD Air Quality Management Plan (AQMP). The California Environmental Quality Act (CEQA) requires a discussion of any inconsistencies between a proposed project and applicable General Plans and regional plans (CEQA Guidelines Section 15125). The regional plan that applies to the Proposed Project includes the SCAQMD AQMP.

The SCAQMD CEQA Handbook states that "New or amended GP Elements (including land use zoning and density amendments), Specific Plans, and significant projects must be analyzed for consistency with the AQMP." Strict consistency with all aspects of the plan is usually not required. A proposed project should be consistent with the AQMP if it furthers one or more policies and does not obstruct other policies. The SCAQMD CEQA Handbook identifies two key indicators of consistency:

(1) Whether the project will result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations or delay timely attainment of air quality standards or the interim emission reductions specified in the AQMP.

(2) Whether the project will exceed the assumptions in the AQMP or increments based on the year of project buildout and phase.

Criterion 1 - Increase in the Frequency or Severity of Violations?

Based on the air quality modeling analysis contained in Appendix A, short-term regional construction air emissions would not result in significant impacts based on SCAQMD regional thresholds of significance or local thresholds of significance. The ongoing operation of the Proposed Project would generate air pollutant emissions that are inconsequential on a regional basis and would not result in significant impacts based on SCAQMD thresholds of significance. The analysis for long-term local air quality impacts shows that local pollutant concentrations would not be projected to exceed the air quality standards. Therefore, potential impacts associated with Criterion 1 would be less than significant and no mitigation would be required.

Based on the information provided above, the Proposed Project would be consistent with the first criterion.

Criterion 2 - Exceed Assumptions in the AQMP?

Consistency with the AQMP assumptions is determined by performing an analysis of the Proposed Project with the assumptions in the AQMP. The emphasis of this criterion is to ensure that the analyses conducted for the Proposed Project are based on the same forecasts as the AQMP. The AQMP is developed through use of the planning forecasts provided in the Regional Transportation Plan/Sustainable Communities Strategies (RTP/SCS) and Federal Transportation Improvement Plan (FTIP). The RTP/SCS is a major planning document for the regional transportation and land use network within Southern California. The RTP/SCS is a long-range plan that is required by federal and state requirements placed on SCAG and is updated every four years. The FTIP provides long-range planning for future transportation improvement projects that are constructed with state and/or federal funds within Southern California. Local governments are required to use these plans as the basis of their plans for the purpose of consistency with applicable regional plans under CEQA. For this project, the City of Santa Ana General Plan's Land Use Plan defines the assumptions that are represented in AQMP.

The Project Site is designated as General Commercial (GC) in the General Plan. The proposed convenience market and gas station are allowed uses in the General Commercial land use designation. The Proposed Project is consistent with the current land use designation and is not anticipated to exceed the AQMP assumptions for the Project Site and is found to be consistent with the AQMP for the second criterion. The Proposed Project would not result in an inconsistency with the SCAQMD AQMP. Therefore, potential impacts associated with a conflict with or obstruction of implementation of an air quality plan would less than significant and no mitigation would be required.

Mitigation Measures: No Mitigation Required.

Significance Determination After Mitigation: Less Than Significant Impact.

b) Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?

Significance Determination: Less Than Significant Impact.

The Proposed Project would not 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.

Construction Emissions

The construction activities for the Proposed Project are anticipated to include grading of the Project Site, building construction and application of architectural coatings to the proposed convenience market and gas station, and paving of the proposed parking lot and driveways. The construction emissions have been analyzed for both regional and local air quality impacts.

Construction-Related Regional Impacts

The CalEEMod was utilized to calculate the construction-related regional emissions from the Proposed Project and the input parameters utilized in this analysis are detailed in Appendix A, Section 7.1. The worst-case summer or winter daily construction-related criteria pollutant emissions from the Proposed Project for each phase of construction activities are shown below in **Table 3** - *Construction-Related Regional Criteria Pollutant Emissions* Since it is likely that building construction and application of architectural coating activities would occur concurrently, these activities have been analyzed together in Table 3.

Table 3 – Construction-Related Regional Criteria Pollutant Emissions

Activity	Pollutant Emissions (pounds/day)					
	VOC	NOx	CO	SO_2	PM10	PM2.5
Grading[1]						
Onsite	1.39	13.84	13.00	0.03	0.98	0.81
Offsite	0.09	0.74	0.67	0.00	0.22	0.06
Total	**1.48**	**14.58**	**13.67**	**0.03**	**1.20**	**0.87**
Building Construction and Architectural Coatings						
Onsite	3.13	10.53	9.22	0.01	0.63	0.59
Offsite	0.02	0.22	0.22	0.00	0.07	0.02
Total	**3.15**	**10.75**	**9.44**	**0.01**	**0.70**	**0.61**
Paving						
Onsite	0.80	7.23	7.11	0.01	0.40	0.37
Offsite	0.08	0.05	0.59	0.00	0.20	0.05
Total	**0.88**	**7.28**	**7.70**	**0.01**	**0.60**	**0.42**
Maximum Daily Construction Emissions	**3.15**	**14.58**	**13.67**	**0.03**	**1.20**	**0.87**
SCQAMD Thresholds	**75**	**100**	**550**	**150**	**150**	**55**
Exceeds Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

Notes:
[1] Grading based on adherence to fugitive dust suppression requirements from SCAQMD Rule 403.
[2] Onsite emissions from equipment not operated on public roads.
[3] Offsite emissions from vehicles operating on public roads.
Source: CalEEMod Version 2016.3.2.

Table 3 shows that none of the analyzed criteria pollutants would exceed the regional emissions thresholds during either grading, the combined building construction and architectural coatings, or paving phases. Therefore, potential regional air quality impacts associated with construction would be less than significant and no mitigation would be required.

Construction-Related Local Impacts

Construction-related air emissions may have the potential to exceed the State and Federal air quality standards in the project vicinity, even though these pollutant emissions may not be significant enough to create a regional impact to the Air Basin.

The local air quality emissions from construction were analyzed through utilizing the methodology described in *Localized Significance Threshold Methodology* (LST Methodology), prepared by SCAQMD, revised October 2009. The LST Methodology found the primary criteria pollutant emissions of concern are NOx, CO, PM10, and PM2.5. In order to determine if any of these pollutants require a detailed analysis of the local air quality impacts, each phase of construction was screened using the SCAQMD's Mass Rate LST Look-up Tables. The Look-up Tables were developed by the SCAQMD in order to readily determine if the daily onsite emissions of CO, NOx, PM10, and PM2.5 from the Proposed Project could result in a significant impact to the local air quality. **Table 4** - *Construction-Related Local Criteria Pollutant Emissions* shows the onsite emissions from the CalEEMod model for the different construction phases and the calculated localized emissions thresholds located Appendix A, Section 8.2. Since it is possible that building construction, paving, and architectural coating activities may occur concurrently, Table 4 also shows the combined local criteria pollutant emissions from building construction, paving and architectural coating phases of construction.

Table 4 – Construction-Related Local Criteria Pollutant Emissions

Phase	Pollutant Emissions (pounds/day)			
	NOx	**CO**	**PM10**	**PM2.5**
Grading[1]	13.84	13.00	0.98	0.81
Building Construction and Architectural Coatings	10.53	9.22	0.63	0.59
Paving	7.23	7.11	0.40	0.37
Maximum Daily Construction Emissions	**13.84**	**13.00**	**0.98**	**0.81**
SCAQMD Local Construction Thresholds[2]	**81**	**485**	**4**	**3**
Exceeds Threshold?	No	No	No	No

Notes:
[1] Grading based on adherence to fugitive dust suppression requirements from SCAQMD Rule 403.
[2] The nearest offsite sensitive receptors include the multi-family homes located adjacent to the south side of the Project Site and the Buddhist temple located adjacent to the east side of the Project Site. According to SCAQMD methodology, all receptors closer than 25 meters are based on the 25 meter threshold.
Source: Calculated from SCAQMD's Mass Rate Look-up Tables for one acre in Air Monitoring Area 17, Central Orange County.

None of the analyzed criteria pollutants would exceed the local emissions thresholds during either grading, combined building construction and architectural coatings, or paving phases. Therefore, potential local air quality impacts associated with construction would be less than significant and no mitigation would be required.

Operational Emissions

The on-going operation of the Proposed Project would result in a long-term increase in air quality emissions. This increase would be due to emissions from the project-generated vehicle trips, emissions from energy usage, and onsite area source emissions created from the on-going use of the Proposed Project.

Operations-Related Regional Criteria Pollutant Analysis

The operations-related regional criteria air quality impacts created by the Proposed Project were analyzed through use of the CalEEMod model and the input parameters utilized in this analysis are detailed in Appendix A, Section 7.1. The VOC emissions created from the proposed gas station's storage and dispensing of gasoline were analyzed through use of the CAPCOA Gas Station Guidelines. The worst-case summer or winter VOC, NOx, CO, SO_2, PM10, and PM2.5 daily emissions created from the Proposed Project's long-term operations were calculated and are summarized below in **Table 5** - *Operational Regional Criteria Pollutant Emissions*.

Table 5 – Operational Regional Criteria Pollutant Emissions

	Pollutant Emissions (pounds/day)					
Activity	**VOC**	**NOx**	**CO**	**SO_2**	**PM10**	**PM2.5**
Area Sources[1]	0.11	0.00	0.00	0.00	0.00	0.00
Energy Usage[2]	0.00	0.00	0.00	0.00	0.00	0.00
Mobile Sources[3]	2.81	7.94	17.33	0.04	2.50	0.70
Gasoline Storage and Dispensing[4]	5.22	0.00	0.00	0.00	0.00	0.00
Total Emissions	**8.14**	**7.94**	**17.33**	**0.04**	**2.50**	**0.70**
SCQAMD Operational Thresholds	**55**	**55**	**550**	**150**	**150**	**55**
Exceeds Threshold?	No	No	No	No	No	No

Notes:
[1] Area sources consist of emissions from consumer products, architectural coatings, and landscaping equipment.
[2] Energy usage consist of emissions from natural gas usage.
[3] Mobile sources consist of emissions from vehicles and road dust.
[4] Gasoline storage and dispensing VOC emissions rate based on 1.27 pounds of VOC per 1,000 gallons of gasoline throughput, based on a maximum throughput of 1.5 million gallons of gasoline per year.
Source: Calculated from CalEEMod Version 2016.3.2 and CAPCO, 1997.

None of the analyzed criteria pollutants would exceed the regional emissions thresholds. Therefore, potential regional air quality impacts associated with operation would be less than significant and no mitigation would be required.

The *Sierra Club v. Friant Ranch* Supreme Court Ruling (Case No. S219783, December 24, 2018) found on page 6 of the ruling that EIRs need to "makes a reasonable effort to substantively connect a project's air quality impacts to likely health consequences." Page 24 of the ruling states "The Court of Appeal identified several ways in which the EIR could have framed the analysis so as to adequately inform the public and decision makers of possible adverse health effects. The County could have, for example, identified the Project's impact on the days of nonattainment per year."

Table 5 shows that the primary source of operational air emissions would be created from mobile source emissions that would be generated throughout the Air Basin. Any adverse health impacts created from the Proposed Project should be assessed on a basin-wide level. The Air Basin has been

designated by EPA for the national standards as a non-attainment area for ozone, PM2.5, and partial non-attainment for lead. In addition, PM10 has been designated by the State as non-attainment. It should be noted that VOC and NOx are ozone precursors, as such they are considered as non-attainment pollutants. According to the 2016 AQMP, in 2016 the total emissions of VOC was 500 tons per year; NOx was 522 tons per year; SOx was 18 tons per year; and PM2.5 was 66 tons per year. Since the 2016 AQMP did not calculate total PM10 emissions, the total PM10 emissions were obtained from *The California Almanac of Emissions and Air Quality 2013 Edition,* prepared by CARB, for the year 2020. The project contribution to each criteria pollutant in the South Coast Air Basin is shown in **Table 6** - *Project's Contribution to Criteria Pollutants in the South Coast Air Basin*.

Table 6 – Project's Contribution to Criteria Pollutants in the South Coast Air Basin

	Pollutant Emissions (pounds/day)					
Emissions Source	**VOC**	**NOx**	**CO**	**SO_2**	**PM10**	**PM2.5**
Project Emissions[1]	2.92	7.94	17.33	0.04	2.50	0.70
Total Emissions in Air Basin[2]	1,000,000	1,044,000	4,246,000	36,000	322,000	132,000
Project's Percent of Air Emissions	**0.0003%**	**0.0008%**	**0.0004%**	**0.0001%**	**0.0008%**	**0.0005%**
SCQAMD Operational Thresholds	**55**	**55**	**550**	**150**	**150**	**55**
Exceeds Threshold?	No	No	No	No	No	No

Notes:
[1] From the project's total operational emissions shown above in Table L.
[2] VOC, NOx, CO, SO_2 and PM2.5 from 2016 AQMP and PM10 from the California Almanac of Emissions and Air Quality 2013 Edition.

The Proposed Project would increase criteria pollutant emissions by as much as 0.0008 percent for both NOx and PM10 in the South Coast Air Basin. Due to these nominal increases in the Air Basin-wide criteria pollutant emissions, no increases in days of non-attainment are anticipated to occur from operation of the Proposed Project. Operation of the Proposed Project is not anticipated to result in a quantitative increase in premature deaths, asthma in children, days children will miss school, asthma-related emergency room visits, or an increase in acute bronchitis among children due to the criteria pollutants created by the Proposed Project. Therefore, potential impacts associated with criteria pollutants in the SCAB would be less than significant and no mitigation would be required.

Operations-Related Local Air Quality Impacts

Project-related air emissions may have the potential to exceed the State and Federal air quality standards in the project vicinity, even though these pollutant emissions may not be significant enough to create a regional impact to the Air Basin. The Proposed Project was analyzed for the potential local CO emission impacts from the project-generated vehicular trips and from the potential local air quality impacts from on-site operations. The following analyzes the vehicular CO emissions and local impacts from on-site operations.

Local CO Hotspot Impacts from Project-Generated Vehicular Trips

CO is the pollutant of major concern along roadways because the most notable source of CO is motor vehicles. For this reason, CO concentrations are usually indicative of the local air quality generated by a roadway network and are used as an indicator of potential local air quality impacts. Local air quality

impacts can be assessed by comparing future without and with project CO levels to the State and Federal CO standards of 20 ppm over one hour or 9 ppm over eight hours.

At the time of the 1993 Handbook, the Air Basin was designated nonattainment under the CAAQS and NAAQS for CO. With the turnover of older vehicles, introduction of cleaner fuels, and implementation of control technology on industrial facilities, CO concentrations in the Air Basin and in the state have steadily declined. In 2007, the Air Basin was designated in attainment for CO under both the CAAQS and NAAQS. SCAQMD conducted a CO hot spot analysis for attainment at the busiest intersections in Los Angeles[10] during the peak morning and afternoon periods and did not predict a violation of CO standards. Since the nearby intersections to the Proposed Project are much smaller with less traffic than what was analyzed by the SCAQMD, no local CO Hotspot are anticipated to be created from the Proposed Project and no CO Hotspot modeling was performed. Therefore, potential long-term air quality impacts associated with vehicular trips would be less than significant and no mitigation would be required.

Local Criteria Pollutant Impacts from Onsite Operations

Project-related air emissions from onsite sources such as architectural coatings, landscaping equipment, and onsite usage of natural gas appliances may have the potential to create emissions areas that exceed the State and Federal air quality standards in the project vicinity, even though these pollutant emissions may not be significant enough to create a regional impact to the Air Basin.

The local air quality emissions from onsite operations were analyzed using the SCAQMD's Mass Rate LST Look-up Tables and the methodology described in LST Methodology. The Look-up Tables were developed by the SCAQMD in order to readily determine if the daily emissions of CO, NOx, PM10, and PM2.5 from the Proposed Project could result in a significant impact to the local air quality. **Table 7** - *Operations-Related Local Criteria Pollutant Emissions* shows the onsite emissions from the CalEEMod model that includes area sources, energy usage, and vehicles operating in the immediate vicinity of the Project Site and the calculated emissions thresholds.

[10] The four intersections analyzed by the SCAQMD were: Long Beach Boulevard and Imperial Highway; Wilshire Boulevard and Veteran Avenue; Sunset Boulevard and Highland Avenue; and La Cienega Boulevard and Century Boulevard. The busiest intersection evaluated (Wilshire and Veteran) had a daily traffic volume of approximately 100,000 vehicles per day with LOS E in the morning and LOS F in the evening peak hour.

Table 7 – Operations-Related Local Criteria Pollutant Emissions

Onsite Emission Source	Pollutant Emissions (pounds/day)			
	NOx	CO	PM10	PM2.5
Area Sources	0.00	0.00	0.00	0.00
Energy Usage	0.00	0.00	0.00	0.00
Onsite Vehicle Emissions[1]	0.20	0.43	0.06	0.02
Total Emissions	**0.20**	**0.43**	**0.06**	**0.02**
SCAQMD Local Operational Thresholds[2]	**81**	**485**	**1**	**1**
Exceeds Threshold?	**No**	**No**	**No**	**No**

Notes:
[1] Onsite vehicle emissions based on 2.5 percent of the gross vehicular emissions, which is the estimated portion of vehicle emissions occurring within a quarter mile of the Project Site (0.25 mile / CalEEMod default trip length of 10.16 mile = 2.5%).
[2] The nearest offsite sensitive receptors include the multi-family homes located adjacent to the south side of the Project Site and the Buddhist temple located adjacent to the east side of the Project Site. According to SCAQMD methodology, all receptors closer than 25 meters are based on the 25 meter threshold.
Source: Calculated from SCAQMD's Mass Rate Look-up Tables for one acre in Air Monitoring Area 17, Central Orange County.

The on-going operations of the Proposed Project would not exceed the local NOx, CO, PM10 and PM2.5 thresholds of significance. Therefore, potential local air quality impacts associated on-site operational emissions would be less than significant and no mitigation would be required.

The Proposed Project would not result in a cumulatively considerable net increase of any criteria pollutant. Therefore, potential impacts associated with 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 would be less than significant and no mitigation would be required.

Mitigation Measures: No Mitigation Required.

Significance Determination After Mitigation: Less Than Significant Impact.

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

Significance Determination: Less Than Significant Impact.

The Proposed Project would not expose sensitive receptors to substantial pollutant concentrations. The local concentrations of criteria pollutant emissions produced in the nearby vicinity of the Proposed Project, which may expose sensitive receptors to substantial concentrations were calculated in Section 5.3(b) above for both construction and operations. The discussion below includes an analysis of the potential impacts from toxic air contaminant emissions from construction and operation. The nearest sensitive receptors to the Project Site are the multi-family homes located adjacent to the south side of the Project Site and the Buddhist temple located adjacent to the east side of the Project Site.

Construction-Related Sensitive Receptor Impacts

Construction activities for the Proposed Project would include grading of the Project Site, building construction and application of architectural coatings to the proposed convenience market and gas station, and paving of the proposed parking lot and driveways. Construction activities may expose sensitive receptors to substantial pollutant concentrations of localized criteria pollutant concentrations

and from toxic air contaminant emissions created from onsite construction equipment, which are described below.

Local Criteria Pollutant Impacts from Construction

The local air quality impacts from construction of the Proposed Project were analyzed above in Section 5.3(b) above and found that the construction of the Proposed Project would not exceed the local NOx, CO, PM10 and PM2.5 thresholds of significance (Appendix A). Therefore, potential local air quality impacts associated with construction would be less than significant and no mitigation would be required.

Toxic Air Contaminants Impacts from Construction

The greatest potential for toxic air contaminant emissions would be related to diesel particulate matter (DPM) emissions associated with heavy equipment operations during construction of the Proposed Project. According to SCAQMD methodology, health effects from carcinogenic air toxics are usually described in terms of "Individual Cancer Risk", which is the likelihood that a person exposed to concentrations of toxic air contaminants over a 70-year lifetime will contract cancer, based on the use of standard risk-assessment methodology. It should be noted that the most current cancer risk assessment methodology recommends analyzing a 30-year exposure period for the nearby sensitive receptors (OEHHA, 2015).

Given the relatively limited number of heavy-duty construction equipment, the varying distances that construction equipment would operate to the nearby sensitive receptors, and the short-term construction schedule, the Proposed Project would not result in a long-term (i.e., 30 or 70 years) substantial source of toxic air contaminant emissions and corresponding individual cancer risk. In addition, California Code of Regulations Title 13, Article 4.8, Chapter 9, Section 2449 regulates emissions from off-road diesel equipment in California. This regulation limits idling of equipment to no more than five minutes, requires equipment operators to label each piece of equipment and provide annual reports to CARB of their fleet's usage and emissions. This regulation also requires systematic upgrading of the emission Tier level of each fleet, and currently no commercial operator can purchase Tier 0 or Tier 1 equipment and by January 2023 no commercial operator can purchase Tier 2 equipment. In addition to the purchase restrictions, equipment operators need to meet fleet average emissions targets that become more stringent each year between years 2014 and 2023. Therefore, potential short-term toxic air contaminant impacts associated with construction would be less than significant and no mitigation would be required.

Operations-Related Sensitive Receptor Impacts

Operation of the Proposed Project may expose sensitive receptors to substantial pollutant concentrations of local CO emission impacts from the project-generated vehicular trips and from the potential local air quality impacts from onsite operations. The following analyzes the vehicular CO emissions. Local criteria pollutant impacts from onsite operations, and toxic air contaminant impacts.

Local CO Hotspot Impacts from Project-Generated Vehicle Trips

CO is the pollutant of major concern along roadways because the most notable source of CO is motor vehicles. For this reason, CO concentrations are usually indicative of the local air quality generated by a roadway network and are used as an indicator of potential impacts to sensitive receptors. The analysis provided above in Section 5.3(b) shows that no local CO Hotspots would be created at any nearby intersections from vehicle traffic generated by the Proposed Project. Therefore, potential impacts to offsite sensitive receptors associated with substantial pollutant concentrations from operation would be less than significant and no mitigation would be required.

Local Criteria Pollutant Impacts from Onsite Operations

Local air quality impacts from the operation of the Proposed Project could occur from onsite sources such as architectural coatings, landscaping equipment, and onsite usage of natural gas appliances. The analysis provided above in Section 5.3(b) found the operation of the Proposed Project would not exceed the local NOx, CO, PM10 and PM2.5 thresholds of significance (Appendix A). Therefore, potential impacts local air quality due to on-site emissions associated with operation would be less than significant and no mitigation would be required.

Operations-Related Toxic Air Contaminant Impacts

The Proposed Project would include an 8-fueling position gas station. A gas station of this size typically has a maximum throughput of 1.5 million gallons of gasoline per year. The Emission Inventory and Risk Assessment Guidelines for Gasoline Dispensing Stations (Gas Station Risk Assessment), prepared by SCAQMD, January 2007, analyzed the TAC emissions and associated cancer risks from gasoline dispensing facilities at locations throughout the Air Basin. The Gas Station Risk Assessment provides residential cancer risk Look Up Tables that are based on the wind patterns from representative monitoring stations throughout Southern California. The Anaheim Monitoring Station data from the Look Up Tables was utilized as that is the nearest location to the Project Site.

The Gas Station Risk Assessment includes Look-Up Tables of the cancer risks created at nearby residences for a gas station that has a throughput of one million gallons per year. The nearest residence to the proposed gas pumps is located as near as 60 feet (18 meters) to the south of the proposed fuel pumps. Since the Look-Up Tables do not provide the residential cancer risk for 18 meters, the two closest distances of 25 and 30 meters were utilized instead and the cancer risk for 18 meters was interpolated from these values, which shows that a gas station with a one million gallon throughput would create a cancer risk of 4.12 per million persons. Based on the formula provided in the Gas Station Risk Assessment, the Proposed Project with a throughput of 1.5 million gallons per year would create a cancer risk of 6.17 per million persons. The project-related cancer risk of 6.17 per million persons would be within the SCAQMD's threshold of 10 per million (Appendix A). Therefore, potential impacts associated with TAC emissions and cancer risk would be less than significant and no mitigation would be required.

Construction and operation of the Proposed Project would result in a less than significant exposure of sensitive receptors to substantial pollutant concentrations. Therefore, potential impacts associated

with the exposure of sensitive receptors to substantial pollutant concentrations would be less than significant and no mitigation would be required.

Mitigation Measures: No Mitigation Required.

Significance Determination After Mitigation: Less Than Significant Impact.

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

Significance Determination: Less Than Significant Impact.

The Proposed Project would not create objectionable odors affecting a substantial number of people. Individual responses to odors are highly variable and can result in a variety of effects. Generally, the impact of an odor results from a variety of factors such as frequency, duration, offensiveness, location, and sensory perception. The frequency is a measure of how often an individual is exposed to an odor in the ambient environment. The intensity refers to an individual's or group's perception of the odor strength or concentration. The duration of an odor refers to the elapsed time over which an odor is experienced. The offensiveness of the odor is the subjective rating of the pleasantness or unpleasantness of an odor. The location accounts for the type of area in which a potentially affected person lives, works, or visits; the type of activity in which he or she is engaged; and the sensitivity of the impacted receptor.

Sensory perception has four major components: detectability, intensity, character, and hedonic tone. The detection (or threshold) of an odor is based on a panel of responses to the odor. There are two types of thresholds: the odor detection threshold and the recognition threshold. The detection threshold is the lowest concentration of an odor that will elicit a response in a percentage of the people that live and work in the immediate vicinity of the Project Site and is typically presented as the mean (or 50 percent of the population). The recognition threshold is the minimum concentration that is recognized as having a characteristic odor quality, this is typically represented by recognition by 50 percent of the population. The intensity refers to the perceived strength of the odor. The odor character is what the substance smells like. The hedonic tone is a judgment of the pleasantness or unpleasantness of the odor. The hedonic tone varies in subjective experience, frequency, odor character, odor intensity, and duration. Potential odor impacts have been analyzed separately for construction and operations below.

Construction-Related Odor Impacts

Potential sources that may emit odors during construction activities include the application of coatings such as asphalt pavement, paints and solvents and from emissions from diesel equipment. The objectionable odors that may be produced during the construction process would be temporary and would not likely be noticeable for extended periods of time beyond the Project Site's boundaries. Therefore, potential impacts associated with construction odors would be less than significant and no mitigation would be required.

Operations-Related Odor Impacts

The Proposed Project would consist of the operation of a convenience market and gas station. Potential sources that may emit odors during the on-going operations of the Proposed Project would primarily occur from odor emissions from gas dispensing activities and from the trash storage areas. Pursuant to SCAQMD Rule 461, the proposed gas station would be required to utilize gas dispensing equipment that minimizes vapor and liquid leaks and the equipment would be maintained in proper working order. Pursuant to City regulations, permanent trash enclosures that protect trash bins from rain as well as limit air circulation would be required for the trash storage areas. Therefore, with compliance with SCAQMD's Rule 461 and City trash storage regulations, potential impacts associated with operational odors would be less than significant and no mitigation would be required.

Therefore, potential impacts associated with odor emissions adversely affecting a substantial number of people would be less than significant and no mitigation would be required.

Mitigation Measures: No Mitigation Required.

Significance Determination After Mitigation: Less Than Significant Impact.

5.4 BIOLOGICAL RESOURCES

Would the project:		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
(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, 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?	☐	☐	☐	☒
(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?	☐	☐	☐	☒

Impact Analysis

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

Significance Determination: Less Than Significant Impact.

The Project Site is an approximate 0.64-acre parcel in an urbanized area of Santa Ana in Orange County that is surrounded by residential development. The Proposed Project would involve a zone change and the construction of a service station with a 3,045 SF convenience store, 1,800 SF fuel canopy with four (4) fuel pumps that would service up to eight (8) vehicles at one time. The Proposed Project would also include ancillary improvements associated with the commercial use, such as landscaping, trash enclosure, signage (including monument sign) and site lighting. The Project Site was previously

disturbed and developed prior to its existing state of vacancy. The Project Site is a corner lot, with N. Euclid Street and W. Hazard Avenue directly adjacent to the west and north. The Project Site is not adjacent to any open space or other vacant parcels. There is no existing body of water on the Project Site that would support any native resident or migratory fish or wildlife species. The Project Site has no capacity to support any species of plants or wildlife that would be 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. Therefore, potential impacts associated with special status species of plants or wildlife would be less than significant and no mitigation would be required.

Mitigation Measures: No Mitigation Required.

Significance Determination After Mitigation: Less Than Significant.

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

Significance Determination: No Impact.

Riparian habitat is composed of the trees and other vegetation and physical features normally found on the stream banks and flood plains associated with streams, lakes, or other bodies of water. The City of Santa Ana is largely urbanized. The Santa Ana River, located approximately .28 miles east of the Project Site, is the nearest area that has the potential to serve as a wildlife corridor; however, intervening development between the Project Site and the Santa Ana River is built-up and urbanized, including the area immediate adjacent the Santa Ana River. The Project Site is a 0.64-acre parcel in an urbanized area of western Santa Ana that is surrounded by residential development. The Project Site was previously disturbed and developed prior to its existing state of vacancy and there is no existing body of water on the Project Site that would support riparian habitat. Therefore, no impacts associated with riparian habitat would occur and no mitigation would be required.

Mitigation Measures: No Mitigation Required.

Significance Determination After Mitigation: No Impact.

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

Significance Determination: No Impact.

Wetlands and "waters of the U.S." (WoUS), are protected under Section 404 of the Clean Water Act (CWA) and are under the jurisdiction of the U.S. Army Corps of Engineers (USACE). WoUS include navigable coastal and inland waters; lakes, rivers, streams, and their tributaries; interstate waters and their tributaries; wetlands adjacent to such waters; intermittent streams; and other waters that could affect interstate commerce. The Project Site is a 0.64-acre parcel in an urbanized area of western Santa Ana that is surrounded by residential development. The Project Site was previously disturbed and

developed prior to its existing state of vacancy and there is no existing body of water on the Project Site that would support federally protected wetlands. Therefore, no impacts associated with federally protected wetlands would occur and no mitigation would be required.

Mitigation Measures: No Mitigation Required.

Significance Determination After Mitigation: No Impact.

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

Significance Determination: Less Than Significant Impact.

The Project Site is located within an existing urbanized area consisting of residential development. The most significant area near the Project Site that has the potential to serve as a wildlife corridor is the Santa Ana River, located approximately .28 miles east of the Project Site, which is considered a regional movement corridor for wildlife; however, intervening development between the Project Site and the Santa Ana River is built-up and urbanized, including the area immediate adjacent the Santa Ana River. The Project Site is in an urbanized area of western Santa Ana that is surrounded by residential development. The Project Site was previously disturbed and developed prior to its existing state of vacancy. The Project Site is a corner lot, with N. Euclid Street and W. Hazard Avenue directly adjacent to the west and north. The Project Site is not adjacent to any open space or other vacant parcels. There is no existing body of water on the Project Site that would support any native resident or migratory fish or wildlife species. Therefore, potential impacts associated with the substantial interference with the movement of any native resident or migratory fish or wildlife species or with an established native resident or migratory wildlife corridor, or the use of native wildlife nursery sites would be less than significant and no mitigation would be required.

Mitigation Measures: No Mitigation Required.

Significance Determination After Mitigation: Less Than Significant.

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

Significance Determination: No Impact.

The Proposed Project would involve the construction of a service station with a 3,045 SF convenience store, 1,800 SF fuel canopy with four (4) fuel pumps that would service up to eight (8) vehicles at one time. The Proposed Project would also include ancillary improvements associated with the commercial use, such as landscaping, trash enclosure, signage (including monument sign) and site lighting. The Project Site is a vacant, previously disturbed parcel, with no existing native or sensitive biological resources on-site. The City does not have a tree preservation ordinance; however, the General Plan's Conservation Element does include goals encouraging the increased planting of trees, bushes and shrubs on private and public property (Goal 3, Objective 3.2). The Proposed Project would include the addition of 27 trees of four (4) different varieties on-site (Figure 10). The Proposed Project would also

include the removal of one (1) existing tree located in the public right-of-way. Therefore, no impacts associated with a conflict with local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance, would occur and no mitigation would be required.

Mitigation Measures: No Mitigation Required.

Significance Determination After Mitigation: No Impact.

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

Significance Determination: No Impact.

The City of Santa Ana does not have an adopted Habitat Conservation Plan (HCP). According to the California Department of Fish and Wildlife, there are two conservation plans applicable to certain parts of Orange County: County of Orange Central/Coastal Subregion Natural Community Conservation Plan (NCCCP) and the Orange County Transportation Authority (OCTA) NCCP. The County of Orange Central/Coastal Subregion NCCP boundaries do not include the Project Site[11]. The OCTA NCCP is specific only to OCTA and applicable to transportation related projects led by OCTA. Therefore, no impacts associated with the conflict of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan would occur and no mitigation would be required.

Mitigation Measures: No Mitigation Required.

Significance Determination After Mitigation: No Impact.

[11] https://www.wildlife.ca.gov/Conservation/Planning/NCCP/Plans/Orange-Coastal Accessed October 3, 2019

5.5 CULTURAL RESOURCES

Would the project:		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
(a)	Cause a substantial adverse change in the significance of a historical resource pursuant to in §15064.5?	☐	☐	☒	☐
(b)	Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☐	☒	☐
(c)	Disturb any human remains, including those interred outside of dedicated cemeteries?	☐	☐	☒	☐

A Paleontological and Cultural Resources Assessment was completed to determine potential impacts to paleontological and cultural resources associated with the development of the Proposed Project (Appendix B – *Cultural and Paleontological Resources Assessment for the Euclid Fueling Station Project,* Cogstone, October 2019)

A paleontological records search from the Natural History Museum of Los Angeles was conducted on August 5, 2019. A California Historical Resources Information System (CHRIS) cultural records search was completed at the South-Central Coastal Information Center (SCCIC) at California State University, Fullerton on August 14, 2019. A Sacred Lands File (SLF) search request from the Native American Heritage Commission (NAHC) was sent on August 15, 2019. An intensive pedestrian survey of the Project Site was conducted on August 22, 2019.

Survey

A Cogstone archaeologist completed an intensive pedestrian survey of the Project Site on August 22, 2019. At the time of the survey, the Project Site was level and contained no permanent structures (Appendix B, Figures 6 and 7). A transient encampment was located on the western side of the Project Site near the southwest corner of the property (Appendix B, Figure 8). Large tents and tarps were used to create shelters and multiple piles of refuse were placed around the shelters with some spreading out to other parts of the Project Site. Excluding areas hidden as a result of the encampment, ground visibility was generally very good averaging approximately 90%. The Project Site was cleared and disked prior to the transient encampment being established. Transects were walked at 2-meter intervals, given the relatively small size of the survey area. At the surface, the soil is light brown silty loam (Appendix B, Figure 9). All stone/rock material was subangular to well-rounded (pebbles to very small cobbles). The few plants within the Project Site consisted of non-native weeds of various types.

No cultural or fossil resources were observed during the pedestrian survey.

Sacred Lands File Search

Cogstone requested a Sacred Lands File (SLF) search from the Native American Heritage Commission (NAHC) on August 15, 2019. The NAHC responded on September 5, 2019, that the Project Area is negative for known sacred sites or resources. The NAHC provided a list of 17 tribal organizations to be

contacted for more information on the potential for tribal resources and sacred sites within the vicinity of the Project (Appendix C of Appendix B). Notification letters were sent to all 17 tribal organizations on October 24, 2019. The City is conducting Native American consultation in conformance with Assembly Bill 52 (AB 52).

Impact Analysis

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

Significance Determination: Less Than Significant Impact

California Historical Resources Information System

Results of the August 14, 2019 search at the South-Central Coastal Information Center (SCCIC) of the California Historical Resource Information System (CHRIS) located on the campus of CSU Fullerton are within Appendix B (Table 4). The results of the record search indicate no previous studies were completed within the Project Site, and seventeen cultural resource investigations have been completed previously within a one-mile radius of the Project Site (Appendix B, Table 4). The records search also determined eleven previously recorded resources are located within the 1-mile radius of the Project Site (Appendix B, Table 5). All of these are historic architectural resources; however, no historic resources were observed on the Project Site or adjacent to the Project Site.

Other Cultural Sources

In addition to the SCCIC records search, a variety of sources were consulted to obtain information regarding the archaeological and historical context of the Project Site (Appendix B, Table 6). Sources included the National Register of Historic Places (NRHP), the California Register of Historic Resources (CRHR), California Historical Landmarks (CHL), and California Points of Historical Interest (CPHI). Specific information about the Project Area, obtained from historic-era maps and aerial photographs, is presented in Appendix B; however, no historic resources listed or eligible for designation by any of the sources mentioned above, or listed on the Santa Ana Register of Historic Properties list[12], are on the Project Site or adjacent to the Project Site.

Therefore, potential impacts associated with a substantial adverse change in the significance of a historical resource pursuant to in §15064.5 would be less than significant and no mitigation would be required.

Mitigation Measures: No Mitigation Required.

Significance Determination After Mitigation: Less Than Significant Impact.

[12] https://www.ci.santa-ana.ca.us/pb/planning-division/historic-preservation Accessed on November 8, 2019

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

Significance Determination: Less Than Significant Impact.

Based on the results of the pedestrian survey, the cultural records search, and the SLF search, the Project Site is assessed to have low sensitivity for prehistoric cultural resources. Analysis of these data sources and historical USDA aerial photographs indicates that the Project Site has also low sensitivity for buried historical archaeological features such as foundations or trash pits.

No cultural resources were identified within the Project Site during survey or during any previous investigations. The CHRIS and SLF searches conducted in support of the Proposed Project indicate that no cultural or tribal resources have been previously recorded within the Project Site. These negative findings, in addition to those of desktop research, suggest that the potential for subsurface archaeological deposits is also low. Based on the USDA aerial photographs, the structures visible within the Project Site were constructed between 1953 and 1974 when residential garbage pickup and sewers were common, thus it is unlikely that buried trash pits or privies will be found. Therefore, potential impacts associated with archaeological resources would be less than significant and no mitigation would be required.

Mitigation Measures: No Mitigation Required.

Significance Determination After Mitigation: Less Than Significant Impact.

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

Significance Determination: Less Than Significant Impact:

Due to the level of past disturbance in the project area, it is not anticipated that human remains, including those interred outside of formal cemeteries, would be encountered during earth removal or disturbance activities. However, there is always the possibility that subsurface construction activities associated with the Proposed Project, such as excavation and grading, could potentially damage or destroy previously undiscovered human remains.

In the unexpected event human remains are found, those remains would require proper treatment, in accordance with applicable laws. Procedures of conduct following the discovery of human remains on non-federal lands have been mandated by California Health and Safety Code (CHSC) §7050.5, PRC §5097.98 and the California Code of Regulations (CCR) §15064.5(e). According to the provisions in CEQA, should human remains be encountered, all work in the immediate vicinity of the burial must cease, and any necessary steps to ensure the integrity of the immediate area must be taken. The Construction Contractor shall notify the County Coroner of the find immediately and no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to PRC Section 5097.98 (State of California 2006). If human remains are found during grading, all work in the immediate area shall stop and may not resume in the vicinity of the find until all requirements of the health and safety code are met. All parties shall follow all applicable state laws regarding human remains. If the remains are Native American, the coroner is responsible for contacting

the NAHC within 24 hours. The NAHC, pursuant to Section 5097.98, shall immediately notify those persons it believes to be the Most Likely Descendant (MLD). The MLD shall complete the inspection of the Project Site within 48 hours of being allowed access to the Project Site and shall recommend preservation in place, reburial, or the scientific removal and nondestructive analysis of human remains and items associated with Native American burials. Therefore, potential impacts associated with human remains would be less than significant with compliance with existing regulations and procedures outlined in the CHSC and the CCR and no mitigation would be required.

Mitigation Measures: No Mitigation Required.

Significance Determination After Mitigation: Less Than Significant Impact.

5.6 ENERGY

Would the project:		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
(a)	Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	☒	☐
(b)	Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☒	☐

An Air Quality, Energy, and Greenhouse Gas Emissions Impact Analysis was completed to determine potential impacts to air quality associated with the development of the Proposed Project (Appendix A – *Air Quality, Energy, and Greenhouse Gas Emissions Impact Analysis, 813 N Euclid Street Gas Station Project,* Vista Environmental, October 4, 2019). The results of the analysis are based on CalEEMod version 2016.3.2.

The 2018 amendments and additions to the CEQA Checklist includes an Energy Section that analyzes the Proposed Project's energy consumption in order to avoid or reduce inefficient, wasteful or unnecessary consumption of energy. Since the Energy Section was recently added, no state or local agencies have adopted specific criteria or thresholds to be utilized in an energy impact analysis. However, the 2018 *Guidelines for the Implementation of the California Environmental Quality Act,* provide the following direction on how to analyze a project's energy consumption:

> "If analysis of the project's energy use reveals that the project may result in significant environmental effects due to wasteful, inefficient, or unnecessary use of energy, or wasteful use of energy resources, the EIR shall mitigate that energy use. This analysis should include the project's energy use for all project phases and components, including transportation-related energy, during construction and operation. In addition to building code compliance, other relevant considerations may include, among others, the project's size, location, orientation, equipment use and any renewable energy features that could be incorporated into the project. (Guidance on information that may be included in such an analysis is presented in Appendix F.) This analysis is subject to the rule of reason and shall focus on energy use that is caused by the project. This analysis may be included in related analyses of air quality, greenhouse gas emissions, transportation or utilities in the discretion of the lead agency."

If the Proposed Project creates inefficient, wasteful or unnecessary consumption of energy during construction or operation activities or conflicts with a state or local plan for renewable energy or energy efficiency, then the Proposed Project would create a significant energy impact.

Impact Analysis

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

Significance Determination: Less Than Significant Impact.

The Proposed Project would impact energy resources during construction and operation. Energy resources that would be potentially impacted include electricity, natural gas, and petroleum-based fuel supplies and distribution systems. This analysis includes a discussion of the potential energy impacts of the Proposed Projects, with emphasis on avoiding or reducing inefficient, wasteful, and unnecessary consumption of energy. A general definition of each of these energy resources are provided below.

Electricity, a consumptive utility, is a man-made resource. The production of electricity requires the consumption or conversion of energy resources, including water, wind, oil, gas, coal, solar, geothermal, and nuclear resources, into energy. The delivery of electricity involves several system components, including substations and transformers that lower transmission line power (voltage) to a level appropriate for on-site distribution and use. The electricity generated is distributed through a network of transmission and distribution lines commonly called a power grid. Conveyance of electricity through transmission lines is typically responsive to market demands.

Natural gas is a combustible mixture of simple hydrocarbon compounds (primarily methane) that is used as a fuel source. Natural gas consumed in California is obtained from naturally occurring reservoirs, mainly located outside the State, and delivered through high-pressure transmission pipelines. The natural gas transportation system is a nationwide network and, therefore, resource availability is typically not an issue. Natural gas satisfies almost one-third of the State's total energy requirements and is used in electricity generation, space heating, cooking, water heating, industrial processes, and as a transportation fuel. Natural gas is measured in terms of cubic feet.

Petroleum-based fuels currently account for a majority of the California's transportation energy sources and primarily consist of diesel and gasoline types of fuels. However, the state has been working on developing strategies to reduce petroleum use. Over the last decade California has implemented several policies, rules, and regulations to improve vehicle efficiency, increase the development and use of alternative fuels, reduce air pollutants and GHG emissions from the transportation sector, and reduce vehicle miles traveled (VMT). Accordingly, petroleum-based fuel consumption in California has declined.

The following section calculates the potential energy consumption associated with the construction and operations of the Proposed Project and provides a determination if any energy utilized by the Proposed Project is wasteful, inefficient, or unnecessary consumption of energy resources.

Construction Energy

The construction activities for the Proposed Project would include grading of the Project Site, building construction and application of architectural coatings to the proposed convenience market and gas

station, and paving of the proposed parking lot and driveways. The Proposed Project would consume energy resources during construction in three (3) general forms:

1. Petroleum-based fuels used to power off-road construction vehicles and equipment on the Project Site, construction worker travel to and from the Project Site, as well as delivery and haul truck trips (e.g. hauling of demolition material to off-site reuse and disposal facilities);

2. Electricity associated with the conveyance of water that would be used during Project construction for dust control (supply and conveyance) and electricity to power any necessary lighting during construction, electronic equipment, or other construction activities necessitating electrical power; and,

3. Energy used in the production of construction materials, such as asphalt, steel, concrete, pipes, and manufactured or processed materials such as lumber and glass.

Construction-Related Electricity

The Proposed Project would consume electricity to construct the new building and infrastructure. Electricity would be supplied to the Project Site by Southern California Edison and would be obtained from the existing electrical lines in the vicinity of the Project Site. The use of electricity from existing power lines rather than temporary diesel or gasoline powered generators would minimize impacts on energy use. Electricity consumed during project construction would vary throughout the construction period based on the construction activities being performed. Various construction activities include electricity associated with the conveyance of water that would be used during project construction for dust control (supply and conveyance) and electricity to power any necessary lighting during construction, electronic equipment, or other construction activities necessitating electrical power. Such electricity demand would be temporary, nominal, and would cease upon the completion of construction. Overall, construction activities associated with the Proposed Project would require limited electricity consumption that would not be expected to have an adverse impact on available electricity supplies and infrastructure. The use of electricity during project construction would not be wasteful, inefficient, or unnecessary.

Since the Project Site is in a developed area, it is anticipated that only nominal improvements would be required to Southern California Edison distribution lines and equipment with development of the Proposed Project. Where feasible, the new service installations and connections would be scheduled and implemented in a manner that would not result in electrical service interruptions to other properties. Compliance with City's guidelines and requirements would ensure that the Proposed Project fulfills its responsibilities relative to infrastructure installation, coordinates any electrical infrastructure removals or relocations, and limits any impacts associated with grading, construction, and development. Construction of the project's electrical infrastructure is not anticipated to adversely affect the electrical infrastructure serving the surrounding uses or utility system capacity. Therefore, potential impacts association with the electricity and infrastructure would be less than significant and no mitigation would be required.

Construction-Related Natural Gas

Construction of the Proposed Project typically would not involve the consumption of natural gas. Natural gas would not be supplied to support construction activities, thus there would be no demand generated by construction. Since the Project Site is located in a developed community that has natural gas line in the vicinity of the Project Site, construction of the Proposed Project would be limited to installation of new natural gas connections within the Project Site (if any are required for the Proposed Project). Development of the Proposed Project would likely not require extensive infrastructure improvements to serve the Project Site. Construction-related energy usage impacts associated with the installation of natural gas connections are expected to be confined to trenching in order to place the lines below surface. In addition, prior to ground disturbance, the Proposed Project would notify and coordinate with SoCalGas to identify the locations and depth of all existing gas lines and avoid disruption of gas service. Therefore, potential impacts association with the natural gas supply and infrastructure would be less than significant and no mitigation would be required.

Construction-Related Petroleum Fuel Use

Petroleum-based fuel usage represents the highest amount of transportation energy potentially consumed during construction, which would utilized by both off-road equipment operating on the Project Site and on-road automobiles transporting workers to and from the Project Site and on-road trucks transporting equipment and supplies to the Project Site.

The off-road construction equipment fuel usage was calculated through use of the default off-road equipment assumptions from the CalEEMod model (Appendix A) and the fuel usage calculations provided in the 2017 Off-road Diesel Emission Factors spreadsheet, prepared by CARB (https://ww3.arb.ca.gov/msei/ordiesel.htm). The Spreadsheet provides the following formula to calculate fuel usage from off-road equipment:

Fuel Used = Load Factor x Horsepower x Total Operational Hours x BSFC / Unit Conversion

Where:

Load Factor - Obtained from CalEEMod default values

Horsepower – Obtained from CalEEMod default values

Total Operational Hours – Calculated by multiplying CalEEMod default daily hours by CalEEMod default number of working days for each phase of construction

BSFC – Brake Specific Fuel Consumption (pounds per horsepower-hour) – If less than 100 Horsepower = 0.408, if greater than 100 Horsepower = 0.367

Unit Conversion – Converts pounds to gallons = 7.109

Table 8 - *Off-Road Construction Equipment Modeled in CalEEMod and Fuel Used* shows the off-road construction equipment fuel calculations based on the above formula, which shows that the off-road equipment utilized during construction of the Proposed Project would consume 9,659 gallons of fuel.

Table 8 – Off-Road Construction Equipment Modeled in CalEEMod and Fuel Used

Equipment Type	Equipment Quantity	Horse-power	Load Factor	Operating Hours per Day	Total Operational Hours[1]	Fuel Used (gallons)
Grading						
Bore/Drill Rigs	1	221	0.5	8	240	1,369
Concrete/Industrial Saws	1	81	0.73	8	240	814
Excavators	1	158	0.38	8	240	744
Rubber Tired Dozers	1	247	0.4	1	30	153
Tractors/Loaders/Backhoes	2	97	0.37	6	360	742
Building Construction						
Cranes	1	231	0.29	4	320	1,107
Forklifts	2	89	0.20	6	960	981
Tractors/Loaders/Backhoes	2	97	0.37	8	1,280	2,637
Architectural Coating						
Air Compressor	1	78	0.48	6	138	297
Paving						
Cement and Mortar Mixers	4	9	0.56	6	504	146
Pavers	1	130	0.42	7	147	414
Rollers	1	80	0.38	7	147	256
Tractors/Loaders/Backhoes	1	97	0.37	7	560	1,153
				Total Off-Road Equipment Fuel Used during Construction (gallons)		**9,659**

Notes:
[1] Based on: 30 days for Grading; 80 days for Building Construction; 23 days for Architectural Coating; 21 days for Paving.
Source: CalEEMod Version 2016.3.2; CARB, 2018.

The on-road construction-related vehicle trips fuel usage was calculated through use of the default construction vehicle trip assumptions from the CalEEMod model run, plus the 6 daily vendor trips added to the Grading phase to account for water truck emissions (Appendix A) and the fleet average miles per gallon rates calculated through use of the EMFAC2017 model (https://www.arb.ca.gov/emfac/2017/) and the EMFAC2017 model printouts (Appendix B of Appendix A). **Table 9** - *On-Road Construction Vehicle Trips Modeled in CalEEMod and Fuel Used* shows the on-road construction vehicle trips modeled in CalEEMod and the fuel usage calculations, which shows that the on-road construction-related vehicle trips would consume 1,022 gallons of fuel.

Table 9 – On-Road Construction Vehicle Trips Modeled in CalEEMod and Fuel Used

Vehicle Trip Types	Daily Trips	Trip Length (miles)	Total Miles per Day	Total Miles per Phase[1]	Fleet Average Miles per Gallon[2]	Fuel Used (gallons)
Grading						
Worker Trips	15	14.7	221	12,642	24.6	269
Vendor Trips	6	6.9	41	1,780	7.8	159
Haul Trips	0.3	20	5	25,000	7.8	21
Building Construction						
Worker Trips	4	14.7	59	1,116,392	24.6	191
Vendor Trips	2	6.9	14	204,137	7.8	142
Architectural Coating						
Worker Trips	1	14.7	15	4,410	24.6	14
Paving						
Worker Trips	18	14.7	265	32,340	24.6	226
		Total Fuel Used from On-Road Construction Vehicles (gallons)				**1,022**

Notes:
[1] Based on: 30 days for Grading; 80 days for Building Construction; 23 days for Architectural Coating; 21 days for Paving.
[2] From EMFAC 2017 model (see Appendix B). Worker Trips based on entire fleet of gasoline vehicles and Vendor Trips based on only truck fleet of diesel vehicles.
Source: CalEEMod Version 2016.3.2; CARB, 2018.

As shown in Table 8 and Table 9, construction of the Proposed Project would result in the consumption of 10,681 gallons of fuel. Construction activities associated with the Proposed Project would adhere to all State and SCAQMD regulations for off-road equipment and on-road trucks, which provide minimum fuel efficiency standards. Construction activities for the Proposed Project would not result in the wasteful, inefficient, and unnecessary consumption of energy resources. Impacts regarding transportation energy would be less than significant. Development of the Project would not result in the need to manufacture construction materials or create new building material facilities specifically to supply the Proposed Project. It is difficult to measure the energy used in the production of construction materials such as asphalt, steel, and concrete, it is reasonable to assume that the production of building materials such as concrete, steel, etc., would employ all reasonable energy conservation practices in the interest of minimizing the cost of doing business.

Operational Energy

The on-going operation of the proposed convenience market and gas station would require the use of energy resources for multiple purposes including, but not limited to, gas pumps, heating/ventilating/air conditioning (HVAC), refrigeration, lighting, appliances, and electronics. Energy would also be consumed during operations related to water usage, solid waste disposal, landscape equipment and vehicle trips.

Operations-Related Electricity

Operation of the Proposed Project would result in consumption of electricity at the Project Site. According to the CalEEMod model run for opening year 2020 (Appendix C of Appendix A), operation of the Proposed Project would utilize 57,527 kilowatt-hours per year of electricity. The Proposed Project

would comply with all Federal, State, and City requirements related to the consumption of electricity, that includes CCR Title 24, Part 6 Building Energy Efficiency Standards and CCR Title 24, Part 11: California Green Building Standards. The CCR Title 24, Part 6 and Part 11 standards require numerous energy efficiency measures to be incorporated into the proposed buildings, including enhanced insulation, use of energy efficient lighting and appliances as well as requiring a variety of other energy-efficiency measures to be incorporated into all of the proposed structures. It is anticipated the Proposed Project would be designed and built to minimize electricity use and that existing and planned electricity capacity and electricity supplies would be sufficient to support the Proposed Project's electricity demand and impacts with regard to electrical supply and infrastructure capacity would be less than significant and no mitigation would be required.

Operations-Related Natural Gas

Operation of the Proposed Project would result in increased consumption of natural gas at the Project Site. According to the CalEEMod model run for opening year 2020 (Appendix C of Appendix A), operation of the Proposed Project would utilize 10 million British thermal units (BTU) of natural gas per year. The Proposed Project would comply with all Federal, State, and City requirements related to the consumption of natural gas, that includes CCR Title 24, Part 6 Building Energy Efficiency Standards and CCR Title 24, Part 11: California Green Building Standards. The CCR Title 24, Part 6 and Part 11 standards require numerous energy efficiency measures to be incorporated into the proposed structures, including enhanced insulation as well as use of efficient natural gas appliances and HVAC units. It is anticipated the Proposed Project will be designed and built to minimize natural gas use and that existing and planned natural gas capacity and natural gas supplies would be sufficient to support the Proposed Project's natural gas demand and impacts with regard to natural gas supply and infrastructure capacity would be less than significant and no mitigation would be required.

Operations-Related Transportation Energy

Operation of the Proposed Project would result in increased consumption of petroleum-based fuels related to vehicular travel to and from the Project Site. According to the CalEEMod model run for opening year 2020, operation of the Proposed Project would generate 1,017,874 vehicle miles traveled per year. According to the EMFAC2017 model run (Appendix B of Appendix A), the fleet average miles per gallon rate for all gasoline-powered vehicles in Southern California in the year 2020 is anticipated to be 24.6 miles per gallon and based on adopted regulations the fuel efficiency rates will improve in later years. Based on this rate, operation of the Proposed Project would use 41,408 gallons of transportation fuel per year. The Proposed Project would comply with all Federal, State, and City requirements related to the consumption of transportation energy that includes California Code of Regulations Title 24, Part 11 California Green Building Standards that require all new parking lots to provide preferred parking for clean air vehicles. It is anticipated the Proposed Project would be designed and built to minimize transportation energy through the promotion of the use of electric-powered vehicles and it is anticipated that existing and planned capacity and supplies of transportation fuels would be sufficient to support the Proposed Project's demand and impacts with regard transportation energy supply and infrastructure capacity would be less than significant and no mitigation would be required.

The Proposed Project would comply with regulatory compliance measures outlined by the State and City related to Air Quality, Greenhouse Gas Emissions (GHG), Transportation/Circulation, and Water Supply. The Proposed Project would be constructed in accordance with all applicable City Building and Fire Codes. The Proposed Project would not result in the wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation. Therefore, potential impacts associated with the wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation would be less than significant and no mitigation would be required.

Mitigation Measures: No Mitigation Required.

Significance Determination After Mitigation: Less Than Significant Impact.

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

Significance Determination: Less Than Significant Impact.

The Proposed Project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. The applicable energy plan for the Proposed Project is the City of Santa Ana General Plan Energy Element, adopted September 20, 1982. The Proposed Project's consistency with the applicable energy-related policies in the General Plan are shown in **Table 10** - *Proposed Project Compliance with Applicable General Plan Energy Policies.*

Table 10 – Proposed Project Compliance with Applicable General Plan Energy Policies

General Plan Policy	Proposed Project Implementation Actions
Provide energy efficient modes of transportation and fixed facilities to encourage transit, bicycle and walking as regularly used modes of travel.	**Not Applicable.** The policy is only applicable for the City to develop new transportation systems.
Maintain a smooth flowing street system which facilitates energy conservation.	**Not Applicable.** The policy is only applicable for the City to improve the street system.
Encourage energy conservation through the City's taxing power.	**Not Applicable.** The policy is only applicable for the City to develop new taxes.
Encourage higher densities of housing and office (mixed use) development to relate to areas of higher transportation access and capacity.	**Consistent.** The Proposed Project is an infill development on a vacant lot that is located at the intersection of two major roadways.
Require and/or provide incentives for energy-efficient subdivision and site planning and building design.	**Consistent.** The Proposed Project will be required to meet the most current Title 24 Part 6 Building Energy Efficiency Standards as well as the Title 24 Part 11 CalGreen standards.
Develop legal means to encourage energy conservation through zoning and building codes.	**Not Applicable.** The policy is only applicable for the City to develop new zoning and building codes.
Establish, update and/or enforce energy performance requirements in the building code.	**Not Applicable.** The policy is only applicable for the City to develop new zoning and building codes.
Develop public or private-public educational programs for City employees and the public.	**Not Applicable.** The policy is only applicable for the City to develop new educational programs.
Introduce concepts of energy efficiency and life cycle costing to city planning and operating decisions.	**Not Applicable.** The policy is only applicable for the City to develop new methods for approving land use projects.
Work with Orange County, the Southern California Association of Governments (SCAG) and the utility companies to develop safe, economical and renewable new energy sources.	**Not Applicable.** The policy is only applicable for the City to develop new energy sources.

Source: City of Santa Ana, 1982.

The Proposed Project would be consistent with all applicable energy-related policies from the General Plan and the Proposed Project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. Therefore, potential impacts associated with the conflict with or obstruction of a state or local plan for renewable energy or energy efficiency would be less than significant and no mitigation would be required.

Mitigation Measures: No Mitigation Required.

Significance Determination After Mitigation: Less Than Significant Impact.

5.7 GEOLOGY AND SOILS

	Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
(a)	Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
	i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☒	☐
	ii. Strong seismic ground shaking?	☐	☐	☒	☐
	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, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☒	☐
(d)	Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	☐	☒	☐
(e)	Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒
(f)	Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐

A Geotechnical Investigation was completed to determine potential impacts to geology and soils associated with the development of the Proposed Project (Appendix C – *Report of Geotechnical Investigation Proposed Building and Improvements*, Garcrest Engineering and Construction, Inc., April 2, 2018).

A Preliminary Water Quality Management Plan (PWQMP) was completed to determine potential impacts to water quality associated with the development of the Proposed Project (Appendix D – *Preliminary Water Quality Management Plan,* NA & Associates, Inc., August 28, 2018).

A Paleontological and Cultural Resources Assessment was completed to determine potential impacts to paleontological and cultural resources associated with the development of the Proposed Project (Appendix B – *Cultural and Paleontological Resources Assessment for the Euclid Fueling Station Project,* Cogstone, October 2019)

Impact Analysis

a) Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury or death involving:

i. Rupture of an known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map?

Significance Determination: Less Than Significant Impact.

Seismically induced surface rupture is defined as the physical displacement of surface deposits in response to an earthquake's seismic waves. Surface rupture is most likely along active faults, and typically occurs during earthquakes of magnitude five or higher. Not all earthquakes result in surface rupture[13].

The Alquist-Priolo Earthquake Fault Zoning Act was passed in 1972 to mitigate the hazard of surface faulting to structures for human occupancy. The Act's main purpose is to prevent the construction of buildings used for human occupancy on the surface trace of active faults. The Act requires the State Geologist to establish regulatory zones, known as "Alquist-Priolo (AP) Earthquake Fault Zones," around the surface traces of active faults and to issue appropriate maps. If an active fault is found, a structure for human occupancy cannot be placed over the trace of the fault and must be set back from the fault (typically 50 feet)[14].

Based on the "Fault Rupture Hazard Zones in California, Special Publication 42, Interim Revision 2018," published by the State of California Conservation Department, and the Geotechnical Investigation Report prepared for the Proposed Project, the Project Site is not located within an identified Alquist-Priolo Earthquake Hazard Zone (Appendix C).

According to the City of Santa Ana's General Plan Land Use Element, there are no known fault traces located in the City of Santa Ana (City of Santa Ana 1998). The probability of surface fault rupture occurring form an active fault is considered low (Appendix C). Additionally, the Proposed Project would be required to follow seismic design parameters based upon the 2020 California Building Code (CBC). Therefore, potential impacts associated with the rupture of a known earthquake fault would be less than significant and no mitigation would be required.

[13] https://www.conservation.ca.gov/cgs/earthquakes
Accessed November 15, 2019.
[14] https://www.conservation.ca.gov/cgs/alquist-priolo
Accessed November 17, 2019

ii. Strong seismic shaking?

Significance Determination: Less Than Significant Impact.

The Project Site is located within the seismically active Southern California region; however, the Project Site is not located on an active fault, nor does Santa Ana contain faults, active, potentially active, or inactive (Appendix C) (City of Santa Ana 1998). During the life of the proposed structures, the property would probably experience moderate to occasionally high ground shaking from fault zones in the Southern California region, as well as some background shaking from other seismically active areas of the Southern California region. The Proposed Project would be designed and constructed in accordance with the 2020 CBC, which would address potential impacts related to potential ground shaking. Therefore, potential impacts associated with strong seismic ground shaking would be less than significant and no mitigation would be required.

iii. Liquefaction?

Significance Determination: Less Than Significant Impact.

Liquefaction is a phenomenon associated with shallow groundwater combined with the presence of loose, fine sands, and/or silts within a depth of 50-feet below grade or less. Liquefaction occurs when saturated, loose, fine sands and/or silts are subjected to strong ground shaking resulting from an earthquake event. Liquefaction has the potential to result in the soil temporarily losing part or all its shear strength. Part of this strength may return sometime after shaking ceases. Liquefaction potential decreases with an increase in grain size, and clay and gravel content. Increasing duration of the ground shaking during a seismic event can also increase the potential for liquefaction (Appendix C).

Groundwater at the Project Site was encountered in one of the borings at a depth of approximately 26 feet below grade. Historical high groundwater at the site is reported to be less than five feet below grade. The site is also located within a State of California designated liquefaction hazard zone and consequently a detailed liquefaction evaluation is included in Appendix C. The results of the liquefaction analyses (Appendix C) estimate the seismically induced liquefaction settlements at the Project Site following proposed site improvements to on the order of 2.5-inches. Differential settlement is anticipated to be on the order of one inch. Seismically induced dry settlements are estimated to be on the order of ¼-inch and differential settlements are estimated to be less than ¼-inch.

Based on these results, some of the on-site soils may have susceptibility to seismically induced liquefaction settlement. Given the potential for liquefaction settlement at the Project Site, Section 7.0 of Appendix C includes a series of recommendations that would be Project Design Features relating to: over-excavation and re-compaction of onsite fill soils beneath buildings to a depth of at least five feet below ground surface and five feet laterally beyond the edge of the foundation; installation of a mat foundation for buildings with a subfloor drainage system; over-excavation and re-compaction of onside fill soils beneath pavement areas to a depth of at least two feet below ground surface; over-excavation and re-compaction of compacted engineered fill for areas where the USTs from the prior gas station use were removed and backfilled; and subgrade anchors and strapping of USTs to prevent tank uplift

in the event of groundwater rise. Therefore, with the implementation of recommendations in Appendix C and compliance with the SAMC that requires a grading permit, potential impacts associated with liquefaction would be less than significant and no mitigation would be required.

iv. Landslides?

Significance Determination: Less Than Significant Impact.

Landslides result from the downward movement of earth or rock materials that have been influenced by gravity. In general, landslides occur due to various factors including steep slope conditions, erosion, rainfall, groundwater, adverse geologic structure, and grading impacts. The Project Site is generally flat and is surrounded by similar topography and no significant slopes are proposed as part of the project design. Further, the California Department of Conservation Earthquake Zones of Required Investigation[15] states the Project Site is not within a landslide zone. Additionally, prior to the issuance of a grading permit, the Property Owner/Developer of the Proposed Project would be required to submit grading and foundation plans to the City for review to demonstrate compliance with the City's grading requirements[16] as well as any applicable recommendations contained in the geotechnical study. The Proposed Project would be designed and constructed in accordance with CBC requirements which would reduce risks associated with landslides. Therefore, potential impacts associated with landslides would be less than significant and no mitigation would be required.

Mitigation Measures: No Mitigation Required.

Significance Determination After Mitigation: Less Than Significant Impact.

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

Significance Determination: No Impact.

The Project Site is vacant and previously disturbed. According to the City of Santa Ana's General Plan Land Use Element, soil and topsoil erosion is associated mainly with soils along the Santa Ana River and Santiago Creek (City of Santa Ana 1998). The Project Site is located approximately 1.71 miles from the Santa Ana River and 3.0 miles from Santiago Creek. Therefore, no impacts associated with soil erosion or loss of topsoil would occur.

Mitigation Measures: No Mitigation Required.

Significance Determination After Mitigation: No Impact.

[15] https://maps.conservation.ca.gov/cgs/EQZApp/app/
Accessed November 13, 2019

[16] https://www.santa-ana.org/sites/default/files/Documents/B-5GradingPermitInformation.pdf Accessed November 17, 2019

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

Significance Determination:

Less Than Significant Impact. The following analysis is based on the City of Santa Ana's General Plan Land Use Element and Appendix C:

Landslide: The Project Site is not located within a designated area where previous occurrence of landslide movement, or local topographic, geological, geotechnical and subsurface water conditions occurred. The Project Site is flat and is not located near slopes that would be susceptible to landslides. Therefore, potential impacts associated with landslides would be less than significant and no mitigation would be required.

Lateral Spreading, Subsidence, Liquefaction or Collapse: The Project Site is in a relatively flat urbanized area and is not in the vicinity of slopes that would be susceptible to liquefaction, however, it is in a State of California designated liquefaction hazard zone (Appendix C) and the City's High-Very High Liquefaction Zone (General Plan Figure A-7), and the City's Subsidence Zone (General Plan Figure A-8). As discussed in Section 5.7(a)(iii), some of the on-site soils may have susceptibility to seismically induced liquefaction settlement. Given the potential for liquefaction settlement at the Project Site, Section 7.0 of Appendix C includes a series of recommendations that would be Project Design Features relating to: over-excavation and re-compaction of onsite fill soils beneath buildings to a depth of at least five feet below ground surface and five feet laterally beyond the edge of the foundation; installation of a mat foundation for buildings with a subfloor drainage system; over-excavation and re-compaction of onside fill soils beneath pavement areas to a depth of at least two feet below ground surface; over-excavation and re-compaction of compacted engineered fill for areas where the USTs from the prior gas station use were removed and backfilled; and subgrade anchors and strapping of USTs to prevent tank uplift in the event of groundwater rise. Therefore, with the implementation of recommendations in Appendix C and compliance with the SAMC that requires a grading permit, potential impacts associated with liquefaction would be less than significant and no mitigation would be required.

Mitigation Measures: No Mitigation Required.

Significance Determination After Mitigation: Less Than Significant Impact.

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

Significance Determination: Less Than Significant Impact.

Soils with the potential for volume change (shrinkage and swelling) caused by moisture variations or drying and wetting cycles are classified as expansive soils. Soil moisture variations are typically a result of rainfall, irrigation, poor drainage, roof drains discharging surficially, and exposure to heat and

drought conditions. This shrinkage and swelling action can potentially result in distress to pavements, floor slabs-on-grade, and foundations and grade beams. Based on the field investigation detailed in Appendix C, the Project Site is underlain by relatively granular soils that are anticipated to have very low to negligible expansion potentials. Therefore, potential impacts associated with expansive soils would be less than significant and no mitigation would be required.

Mitigation Measures: No Mitigation Required.

Significance Determination After Mitigation: Less Than Significant Impact.

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

Significance Determination: No Impact.

The Project Site would be served by a public sewer system. The Proposed Project would not include the use of septic tanks or alternative wastewater disposal systems. Therefore, no impacts associated with septic tanks or alternative wastewater disposal systems would occur.

Mitigation Measures: No Mitigation Required.

Significance Determination After Mitigation: No Impact.

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

Significance Determination: Less Than Significant Impact with Mitigation Incorporated.

Paleontological Records Search

Cogstone requested a records search from the Natural History Museum of Los Angeles County, Department of Vertebrate Paleontology (LACM) that covered the Project Area as well as a one-mile radius (McLeod 2019; Appendix B). Online databases including the Natural History Museum of Los Angeles County, Department of Invertebrate Paleontology (LACMIP 2019), the Paleobiology Database (PBDB 2019), and the University of California Museum of Paleontology Database (UCMP 2019) were also searched for localities near to the Project Site. Print resources including published material (Hay 1927; Jefferson 1991a, 1991b) were searched for fossil localities.

Holocene Fossils

Results of the record search indicate that no previous fossil localities have been recorded within the Project boundaries. A Holocene peat locality was recovered a little less than five miles to the southwest of the Project Site (LACM 4018; McLeod 2019), however, the estuary that had produced the peat did not reach as far inland as Santa Ana (Table 2; Fairchild and Weibe 1976:337).

Late Pleistocene Fossils

Pleistocene fossils of mammoths, elephant, camels, and bison are known from Orange County as shallow as six to eight feet below the current ground surface (Appendix B, Table 2; McLeod 2011, 2019). Hundreds of late Pleistocene vertebrate fossils from Irvine adjacent to the San Joaquin Marsh have been collectively placed in the San Joaquin Marsh Local Fauna (Appendix B, Table 3). Fossils have been recovered between eight to 25 feet below the modern surface (Michalsky and Sample 2002, Reynolds 2003, Staley 2003, Commendador-Dugeon et al. 2006a, 2006b, DeBusk and Seckel 2007, DeBusk 2008, Lander 2008, Scott and Gust 2008, Gust and Scott 2009, Smith 2009). Additional fossils have been recovered (Appendix B, Table 3); however, planned grading for the Project will not be deep enough to impact the San Pedro Formation mentioned by McLeod (2019; LACM 76547-7659).

A multilevel ranking system was developed by professional resource managers within the Bureau of Land Management (BLM) as a practical tool to assess the sensitivity of sediments for fossils. The Potential Fossil Yield Classification (PFYC) system (BLM 2016; Appendix D of Appendix B) has a multi-level scale based on demonstrated yield of fossils. The PFYC system provides additional guidance regarding assessment and management for different fossil yield rankings.

Fossil resources occur in geologic units (e.g., formations or members). The probability for finding significant fossils in a Project area can be broadly predicted from previous records of fossils recovered from the geologic units present in and/or adjacent to the study area. The geological setting and the number of known fossil localities help determine the paleontological sensitivity according to PFYC criteria.

All alluvial deposits may increase or decrease in fossiliferous potential depending on how coarse the sediments are. Sediments that are close to their basement rock source are typically coarse; those farther from the basement rock source are finer. The chance of fossils being preserved greatly increases once the average size of the sediment particles is reduced to 5 mm or less in diameter. Moreover, fossil preservation also greatly increases with rapid burial in floodplains, rivers, lakes, oceans, etc. Remains left on the ground surface become weathered by the sun or consumed by scavengers and bacterial activity, usually within 20 years or less. The sands, silts, and clays of floodplains, rivers, lakes, and oceans are the most likely sediments to contain fossils. Using the PFYC system, geologic units are classified according to the relative abundance of vertebrate fossils or scientifically significant invertebrate or plant fossils and their sensitivity to adverse impacts within the known extent of the geological unit. Although significant localities may occasionally occur in a geologic unit, a few widely scattered important fossils or localities do not necessarily indicate a higher PFYC value; instead, the relative abundance of localities is intended to be the major determinant for the value assignment.

The artificial fill has no potential to produce scientifically relevant fossils and so are assigned a very low potential for fossils (PFYC 1). Late Pleistocene to Holocene alluvial fan sediments less than eight feet below the modern surface are assigned a low potential for fossils (PFYC 2) due to the lack of fossils in these deposits. Sediments located more than 8 feet below the modern surface are assigned a moderate but patchy potential for fossils (PFYC 3a) due to similar deposits producing fossils at that depth near to the study area, as shown in **Table 11** - *Paleontological Sensitivity Rankings*.

Table 11 - Paleontological Sensitivity Rankings

Rock Unit	PFYC Rankings					
	5 Very High	4 High	3a Moderate; Patchy	3b Moderate; Undemonstrated	2 Low	1 Very Low
Artificial fill, modern						X
Old alluvial fan, late Pleistocene to Holocene				less than 8 feet deep		
Old alluvial fan, late Pleistocene to Holocene			more than 8 feet deep			

Project sediments include modern fill and late Pleistocene to Holocene alluvial fan. The record search revealed no fossil localities from within the Project Site or immediate vicinity; however, localities are known from the same sediments as found within the study area near to the Project Site.

The modern fill is assigned a very low potential for fossils (PFYC 1). The late Pleistocene to Holocene alluvial fan sediments less than eight feet below the modern surface are assigned a low potential for fossils (PFYC 2) due to the lack of fossils in these deposits. More than eight feet below the modern surface the late Pleistocene to Holocene alluvial fan deposits are assigned a moderate but patchy potential for fossils (PFYC 3a) due to similar deposits producing fossils at that depth near to the study area.

Planned vertical impacts include removal of approximately five feet of fill from most, if not all, of the Project Site, and excavation for a trench to be approximately 16 feet deep, 20 feet wide and 25 feet long for underground fuel storage tank. Trenches for utilities must be a minimum of three feet deep but will be excavated in newly imported and compacted fill and are unlikely to extend into native sediments. However, development activities have the potential to encounter undiscovered paleontological resources and the project would be subject to compliance with **MM GEO-1**, which provides direction in the event paleontological resources are unearthed during project subsurface activities. Therefore, with implementation of **MM GEO-1**, impacts associated with the direct or indirect destruction of a unique paleontological resource or site or unique geological feature would be less than significant.

Mitigation Measures:

MM GEO-1: Prior to the issuance of a grading permit, the Property Owner/Developer shall include the following note on the grading plans: In the event that paleontological resources are encountered during grading and construction, all construction activities shall be temporarily halted or redirected to permit the sampling, identification, and evaluation of paleontological materials as determined by the City, who shall establish with a certified paleontologist, the appropriate procedures for exploration and/or salvage of the resources.

Significance Determination After Mitigation: Less Than Significant Impact.

5.8 GREENHOUSE GAS EMISSIONS

Would the project:		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
(a)	Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
(b)	Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐

An Air Quality, Energy, and Greenhouse Gas Emissions Impact Analysis was completed to determine potential impacts to air quality associated with the development of the Proposed Project (Appendix A – *Air Quality, Energy, and Greenhouse Gas Emissions Impact Analysis, 813 N Euclid Street Gas Station Project*, Vista Environmental, October, 2019). The results of the analysis are based on CalEEMod version 2016.3.2.

Impact Analysis

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

Significance Determination: Less Than Significant Impact.

The City of Santa Ana has adopted a Climate Action Plan (Santa Ana CAP) prepared in order to assist the City in conforming to the GHG emissions reductions as mandated under AB 32. The Santa Ana CAP provides community wide GHG emissions reduction goals of 15 percent below the baseline year 2008 by 2020 and 30 percent below the baseline year 2008 by 2035. Since the Santa Ana CAP does not provide any quantitative GHG emissions thresholds for new development projects nor does it provide any direction on how to analyze new development projects within the City, the SCAQMD GHG emissions reduction thresholds were utilized in this analysis.

In order to identify significance criteria under CEQA for development projects, SCAQMD initiated a Working Group, which provided detailed methodology for evaluating significance under CEQA. At the September 28, 2010 Working Group meeting, the SCAQMD released its most current version of the draft GHG emissions thresholds, which recommends a tiered approach that provides a quantitative annual threshold of 3,000 $MTCO_2e$ for all land use projects. Although the SCAQMD provided substantial evidence supporting the use of the above threshold, as of November 2019, the SCAQMD Board had not yet considered or approved the Working Group's thresholds.

SCAQMD's Working Group's thresholds were prepared prior to the issuance of Executive Order B-30-15 on April 29, 2015 that provided a reduction goal of 40 percent below 1990 levels by 2030. This target was codified into statute through passage of AB 197 and SB 32 in September 2016. However, to date no air district or local agency within California has provided guidance on how to address AB 197 and SB

32 with relation to land use projects. In addition, the California Supreme Court's ruling on *Cleveland National Forest Foundation v. San Diego Association of Governments* (Cleveland v. SANDAG), Filed July 13, 2017 stated:

> SANDAG did not abuse its discretion in declining to adopt the 2050 goal as a measure of significance in light of the fact that the Executive Order does not specify any plan or implementation measures to achieve its goal. In its response to comments, the EIR said: "It is uncertain what role regional land use and transportation strategies can or should play in achieving the EO's 2050 emissions reduction target. A recent California Energy Commission report concludes, however, that the primary strategies to achieve this target should be major 'decarbonization' of electricity supplies and fuels, and major improvements in energy efficiency [citation].

Although, the above court case was referencing California's GHG emission targets for the year 2050, at this time it is also unclear what role land use strategies can or should play in achieving the AB 197 and SB 32 reduction goal of 40 percent below 1990 levels by 2030. This analysis relied on the SCAQMD Working Group's recommended thresholds. Therefore, the Proposed Project would be considered to create a significant cumulative GHG impact if it would exceed the annual threshold of 3,000 $MTCO_2e$.

As shown in **Table 12** - *Project Related Greenhouse Gas Annual Emissions*, the Proposed Project would not generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment. The Proposed Project would consist of development of a convenience market and gas station. The Proposed Project is anticipated to generate GHG emissions from area sources, energy usage, mobile sources, waste disposal, water usage, and construction equipment.

Table 12 – Project Related Greenhouse Gas Annual Emissions

	Greenhouse Gas Emissions (Metric Tons per Year)			
Category	**CO_2**	**CH_4**	**N_2O**	**CO_2e**
Area Sources[1]	0.00	0.00	0.00	0.00
Energy Usage[2]	18.85	0.00	0.00	18.92
Mobile Sources[3]	509.24	0.03	0.00	510.10
Solid Waste[4]	0.20	0.01	0.00	0.50
Water and Wastewater[5]	0.56	0.00	0.00	0.64
Construction[6]	3.25	0.00	0.00	3.28
Total GHG Emissions	532.10	0.04	0.00	**533.44**
SCAQMD Draft Threshold of Significance				**3,000**
Exceed Thresholds?				**No**

Notes:
[1] Area sources consist of GHG emissions from consumer products, architectural coatings, and landscaping equipment.
[2] Energy usage consists of GHG emissions from electricity and natural gas usage.
[3] Mobile sources consist of GHG emissions from vehicles.
[4] Waste includes the CO_2 and CH_4 emissions created from the solid waste placed in landfills.
[5] Water includes GHG emissions from electricity used for transport of water and processing of wastewater.
[6] Construction emissions amortized over 30 years as recommended in the SCAQMD GHG Working Group on November 19, 2009.
Source: CalEEMod Version 2016.3.2.

Table 12 shows the Proposed Project would create 533.44 $MTCO_2e$ per year. According to the SCAQMD draft threshold of significance detailed above, a cumulative global climate change impact would occur if the GHG emissions created from the on-going operations would exceed 3,000 $MTCO_2e$ per year.

Therefore, potential impacts associated with the generation of greenhouse gas emissions, either directly or indirectly, would be less than significant and no mitigation would be required.

Mitigation Measures: No Mitigation Required.

Significance Determination After Mitigation: Less Than Significant Impact.

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

Significance Determination: Less Than Significant Impact.

The Proposed Project would not conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing GHG emissions. The applicable plan for the Proposed Project is the *Santa Ana Climatic Action Plan*, adopted December 2015. The Santa Ana CAP provides community wide GHG emissions reduction goals of 15 percent below the baseline year 2008 by 2020 and 30 percent below the baseline year 2008 by 2035. The Santa Ana CAP includes numerous measures to reduce GHG emissions, however the measures are primarily directed toward activities for the City to implement and not directed to new development projects. However, the Proposed Project would develop a convenience market and gas station, where the nearest similar facilities are currently located approximately a half mile away from the project area. The Proposed Project would address the Santa Ana CAP Measure that encourages development of local retail service nodes. The Proposed Project would be required to meet the most current Title 24 Part 6 Building Energy Efficiency standards and the Title 24 Part 10 CalGreen standards. The Proposed Project would comply with the Santa Ana CAP and as detailed in Section 5.8(a) above and would comply with the SCAQMD's GHG emissions thresholds. The Proposed Project would not conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases. Therefore, potential impacts associated with the conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases would be less than significant and no mitigation would be required.

Mitigation Measures: No Mitigation Required.

Significance Determination After Mitigation: Less Than Significant Impact.

5.9 HAZARDS AND HAZARDOUS MATERIALS

Would the project:		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
(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 reasonable 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 one-quarter mile of an existing or proposed school?	☐	☒	☐	☐
(d)	Be located on a site which is included on a list of hazardous materials sites complied pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☒	☐
(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 Phase I and Phase II Environmental Site Assessment (ESA) was completed to determine potential impacts to hazards and hazardous materials associated with the existing Project Site. (Appendix F – *Phase I Environmental Site Assessment Proposed 7-Eleven Store #1042163, Stantec Consulting Services, Inc., October 17, 2019*) and (Appendix G – *Phase II Environmental Site Assessment 7-Eleven Store No. 38384 (1042163), Stantec Consulting Services, Inc., October 18, 2019*)

Phase I ESA

The Project Site was identified in the Environmental Data Resources (EDR) databases HIST UST, LUST, HIST CORTESE, SWEEPS UST, CA FID UST, and CERS. The Project Site was previously developed with a gas station, and between 1972 and 2005 was listed in the State of California's Water Board GeoTracker website as a leaking underground storage tank (LUST) site with a cleanup status of 'Completed – case closed as of July 5, 2005'. Gasoline was listed as the potential contaminant of concern and soil and groundwater were considered as potential media of concern.

Due to former release, the Project Site meets the definition of a potential vapor encroachment condition (VEC) as defined by ASTM E2600-15. Although the Project Site received closure in 2005, historic use as a gas station with the potential presence of residual soil and groundwater contamination and potential soil vapor contamination due to historical release is considered a recognized environmental condition (REC).

A site visit of the Project Site was conducted on August 16, 2019. The Project Site consisted of unlevel soil and no hazardous observations were made. Appendix F recommended a Phase II ESA be conducted for the Project Site.

Phase II ESA

Appendix G includes a site-specific Health and Safety Plan (HASP), identification of subsurface utility locations, soil and groundwater sample testing and subsequent results. On September 26, 2019, five borehole locations were drilled to a depth of approximately 15 feet below ground surface and groundwater and soil samples retrieved from these boreholes. The lithologies observed in the boreholes drilled during the Phase II investigation consisted primarily of silty sand, sandy silt, and poorly graded sand. Groundwater was initially encountered in all the five boreholes between 13 and 14 feet below ground surface. Static groundwater was observed at depths ranging from 11.5 to 12 feet below ground surface.

Appendix G concludes no further assessment is recommended at this time. The hydrocarbon concentrations detected in the soil and groundwater samples appear to be residual from the closed LUST case on the site; however, concentrations in certain soil samples (B3-15 and B3-W) are above action levels for TPH GRO and benzene and should be reported to the Santa Ana Regional Water Quality Control Board. On December 19, 2019, the Sagecrest Project Manager spoke with Carl Bernhardt from the RWQCB, who had reviewed the Phase II ESA and proposed **MM HAZ-1**. Mr. Bernhardt indicated that **MM HAZ-1** would sufficiently address any concerns of the RWQCB identified in the Phase II ESA, which recommends implementation of a soil and groundwater management plan for construction.

Impact Analysis

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

Significance Determination: Less Than Significant Impact with Mitigation Incorporated.

Soil sampling as part of the Phase II ESA concluded that the hydrocarbon concentrations detected in the soil and groundwater samples appear to be residual from the closed LUST case on the Project Site. However, the TPH GRO concentration in soil sample B3-15, and the TPH GRO and benzene concentrations in B3-W are above action levels and should be reported to the Santa Ana Regional Water Quality Control Board. On December 19, 2019, the Sagecrest Project Manager spoke with Carl Bernhardt from the RWQCB, who had reviewed the Phase II ESA and proposed **MM HAZ-1**. Mr. Bernhardt indicated that **MM HAZ-1** would sufficiently address any concerns of the RWQCB identified in the Phase II ESA. Prior to the issuance of a grading permit, the Property Owner/Developer would be

required to implement a soil and groundwater management plan, as detailed in **MM HAZ-1,** which would include additional soil sampling to provide information for potentially hydrocarbon impacted soil and groundwater disposal during grading and construction.

Construction of the Proposed Project would entail routine transport of potentially hazardous materials, including gasoline, oil solvents, cleaners, paint, and soil from the Project Site. Proper BMPs, preparation of a SWPPP, and hazardous material handling protocols would be required to ensure safe storage, handling, transport, use, and disposal of all hazard materials during the construction phase of the Proposed Project. Construction would also be required to adhere to any local standards set forth by the City, as well as state and federal health and safety requirements that are intended to minimize hazardous materials risks to the public, such as California OSHA requirements, the Hazardous Waste Control Act, the California Accidental Release Prevention program, and the California Health and Safety Code.

Operation of the Proposed Project would involve the operation of the convenience store and fuel service pumps, along with associated landscape and maintenance. Hazardous or potentially hazardous materials would be routinely handled, stored, and dispensed on the Project Site, such as gasoline. The Proposed Project involves the construction and operation of a service station, which would include the installation and maintenance of underground storage tanks (UST) for the storage of gasoline on-site. Service stations are subject to routine inspection by federal, state, and local regulatory agencies with jurisdiction over fuel dispensing facilities. The service station's storage and delivery of the hazardous materials would comply with all applicable federal, state, and local regulation in order to functionally operate, including but not limited to Section 2540.7 – Gasoline Dispensing and Service Stations, of the California Occupational Safety and Health Regulations (Cal OSHA); Chapter 38 – Liquefied Petroleum Gases, of the California Fire Code (CFC); the Resource Conservation and Recovery Act (RCRA); and the Orange County Fire Authority standards (OCFA). These regulatory requirements minimize health risk to the public associated with fuel service stations' hazardous materials. The Proposed Project would not result in a significant impact associated with the routine transport, use or disposal of hazardous materials because of cumulative routine inspections, regulation, and required compliance with applicable federal, state, and local laws surrounding service station operation, delivery, storage, and fuel dispensing. Therefore, with implementation of **MM HAZ-1**, potential impacts associated with the routine transport, use or disposal of hazardous materials would be less than significant.

Mitigation Measures:

MM HAZ-1: Prior to the issuance of a grading permit, the Property Owner/Developer shall submit to the City Public Works and Planning and Building Departments a soil and groundwater management plan that includes additional soil sampling by qualified firm to determine the presence or absence of hydrocarbon impacted soil and/or groundwater during grading and construction of the Proposed Project. Qualified personnel shall be retained to be present on-site during excavation activities as part of the plan. The plan shall identify proper procedures to dispose of impacted soil and groundwater in accordance with all applicable federal, state, and local regulations.

Significance Determination After Mitigation: Less Than Significant Impact.

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

Significance Determination: Less Than Significant Impact with Mitigation Incorporated.

As discussed in Section 5.9(a) above, construction and operation of the Proposed Project, including service station operation, delivery, storage, and fuel dispensing, would comply with all applicable federal, state and local laws and regulations in order to reduce the likelihood and severity of accidents during potential future buildout of the Project Site. Adherence to the required applicable regulations established by the federal, state, and local agencies with jurisdictions over fueling stations, such as Cal OSHA, CFC, RCRA and OCFA, and implementation of **MM HAZ-1**, would reduce potential impacts associated with hazardous waste and ensure any transport or interaction with hazardous materials occurs in the safest possible manner. This would reduce the opportunity for accidental release and impacts. Any hazardous material handling associated with the operation of the Proposed Project would be limited in both quantity and concentration to the smallest possible limits. Pursuant to Cal OSHA requirements, all hazardous material stored on-site would be accompanied by a Material Safety Data Sheet, which would inform on-site operators of necessary remediation processes in the event of accidental release. Therefore, with implementation of all required applicable federal, state, and local regulations and **MM HAZ-1**, potential impacts to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment would be less than significant.

Mitigation Measures: MM HAZ-1.

Significance Determination After Mitigation: Less Than Significant Impact.

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

Significance Determination: Less Than Significant Impact with Mitigation Incorporated.

Rosita Elementary School is within one-quarter mile of the Project Site. Rosita Elementary School is located 0.2 miles to the east of the Project Site. Construction of the Proposed Project would comply with all applicable federal, state and local laws and regulations pertaining to the transport, use, disposal, handling and storage of hazardous waste to reduce the likelihood and severity of accidents during buildout of the Project Site. Implementation of **MM HAZ-1** would identify proper procedures to dispose of impacted soil and groundwater in accordance with all applicable federal, state, and local regulations. Operation of the Proposed Project, including service station operation, delivery, storage, and fuel dispensing, would comply with all applicable federal, state and local laws and regulations in order to reduce the likelihood and severity of accidents during potential future buildout of the Project Site. Adherence to the required applicable regulations established by the federal, state, and local agencies with jurisdictions over fueling stations, such as Cal OSHA, CFC, RCRA and OCFA, would reduce potential impacts associated with hazardous waste and ensure any transport or interaction with hazardous materials occurs in the safest possible manner. This would reduce the opportunity for

accidental release and impacts. Any hazardous material handling associated with the operation of the Proposed Project would be limited in both quantity and concentration to the smallest possible limits. Pursuant to Cal OSHA requirements, all hazardous material stored on-site would be accompanied by a Material Safety Data Sheet, which would inform on-site operators of necessary remediation processes in the event of accidental release. Therefore, with implementation of all required applicable federal, state, and local regulations and **MM HAZ-1,** potential impacts associated with hazardous emissions or handling of hazardous materials within one-quarter mile of an existing school would be less than significant.

Mitigation Measures: MM HAZ-1.

Significance Determination After Mitigation: Less Than Significant Impact.

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

Significance Determination: Less Than Significant Impact.

According to the California Environmental Protection Agency Cortese List Data Resources[17], the Project Site is not currently listed on the Department of Toxic Substances Control EnviroStor list[18], the State Water Resources Control Board GeoTracker database[19], or a solid waste disposal site[20]. The Project Site was previously developed with a gas station, and between 1972 and 2005 was listed in the State of California's Water Board GeoTracker website as a leaking underground storage tank (LUST) site with a cleanup status of 'Completed – case closed as of July 5, 2005'. Gasoline was listed as the potential contaminant of concern and soil and groundwater were considered as potential media of concern. Appendix G concludes the hydrocarbon concentrations detected in the soil and groundwater samples appear to be residual from the closed LUST case on the Project Site. Therefore, potential impacts associated with sites listed pursuant to Government Code Section 65962.5 would be less than significant.

Mitigation Measures: No Mitigation Required.

Significance Determination After Mitigation: Less Than Significant Impact.

[17] https://calepa.ca.gov/SiteCleanup/CorteseList/ accessed July 18, 2019
[18] https://www.envirostor.dtsc.ca.gov Accessed July 18, 2019
[19] https://geotracker.waterboards.ca.gov/ Accessed July 18, 2019
[20] https://calepa.ca.gov/wp-content/uploads/sites/6/2016/10/SiteCleanup-CorteseList-CurrentList.pdf Accessed July 18, 2019

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

Significance Determination: No Impact.

The Proposed Project would not expose people residing or working in the project area to excessive noise levels from aircraft. The nearest airport is the Joint Forces Training Base Los Alamitos Airfield, located approximately 6.8 miles northwest of the Project Site. The Project Site is located outside of the 60 dBA CNEL noise contours of the Airfield and no impacts would occur from aircraft noise. Therefore, no impacts associated with exposure of people residing or working in the project area to excessive noise levels from an airstrip or public or private use airport would occur and no mitigation would be required.

Mitigation Measures: No Mitigation Required.

Significance Determination After Mitigation: No Impact.

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

Significance Determination: Less Than Significant Impact.

The Project Site is not located within the service area of the OCFA Standards of Cover and Deployment Plan 2014[21]. The Proposed Project does not involve construction or operational characteristics which would interfere or impact emergency response or evacuation of the Project Site or immediate surrounding area. Egress and Ingress to the Project Site is maintained and circulation on-site is provided to comply with OCFA and City requirements. Therefore, potential impacts to the implementation of or physical interference with an adopted emergency response plan or emergency evacuation plan would be less than significant and no mitigation would be required.

Mitigation Measures: No Mitigation Required.

Significance Determination After Mitigation: Less Than Significant Impact.

[21] https://www.ocfa.org/Uploads/Orange%20County%20Fire%20Authority%20SOC_FINAL.pdf

g) Expose people or structures, either directly or indirectly to a significant risk of loss, injury or death involving wildland fires?

Significance Determination: No Impact.

The City of Santa Ana is largely developed and does not have any major areas containing flammable brush, grass or trees[22]. The Project Site is not located in a High Fire Hazard Severity Zone[23]. There is built environment surrounding the Project Site, with residential development to the north, south and west, and Buddhist Temple to the east. Therefore, no impacts exposing people or structures directly or indirectly to significant risks involving wildland fires would occur.

Mitigation Measures: No Mitigation Required.

Significance Determination After Mitigation: No Impact.

[22] https://www.santa-ana.org/sites/default/files/pb/general-plan/documents/Land%20Use_0.pdf (pg. A-52) Accessed October 11, 2019

[23] https://frap.fire.ca.gov/media/6218/fhszs_map30.pdf Accessed October 11, 2019

5.10 HYDROLOGY AND WATER QUALITY

	Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
(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 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 surfaces, in a manner which would:	☐	☐	☒	☐
	i. Result in substantial erosion or siltation on- or off-site;	☐	☐	☒	☐
	ii. Increase the rate or amount of surface runoff in a manner which would result in flooding in- or off-site;	☐	☐	☒	☐
	iii. Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff; or	☐	☐	☒	☐
	iv. Impede or redirect flood lows?	☐	☐	☒	☐
(d)	In flood hazard, tsunami, or seiche zones, 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 Preliminary Storm Water Quality Management (PWQMP) was completed to determine potential impacts to water quality associated with the development of the Proposed Project (Appendix D – *Preliminary Water Quality Management Plan,* NA & Associates, Inc., August 28, 2018)

A Hydrology and Hydraulics Report was completed to determine design flows for on-site drainage systems of the Proposed Project (Appendix E – *Hydrology and Hydraulics Report,* NA & Associates, Inc., October 2019)

Impact Analysis

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

Significance Determination: Less Than Significant Impact.

The Federal Clean Water Act and the State Porter-Cologne Act are the principle regulations for control of storm water pollutants. The 1987 amendments to the Federal Clean Water Act added section 402(p) which establishes a framework for regulating municipal, industrial, and construction storm water discharges under the National Pollutant Discharge Elimination System (NPDES) program. On November 16, 1990, the USEPA published final regulations that establish application requirements for storm water permits from five classes of discharges (Phase 1) including storm water associated with industrial activity (industrial storm water) that discharges either directly to surface waters or indirectly through municipal separate storm drain systems. Municipalities with a population over 100,000 or those that have been determined to be a significant contributor of pollutants are also required to obtain a NPDES storm water permit. As part of its storm water management program, a municipality is required to develop a program to monitor and control pollutants in storm water discharges from its municipal system. These programs must include structural and source control measures to reduce pollutants from runoff from commercial and industrial areas.

In addition to the storm water requirements, both the Federal Clean Water Act and the State Porter-Cologne Act require the control of pollutants in wastewater discharges. The Porter-Cologne Act requires the development of Basin Plans for drainage basins in California. These basin plans are used in turn to identify more specific controls for discharges (e.g., wastewater treatment plant effluent). The basin plans are implemented through the NPDES program. Many municipalities, being subject to both storm water and wastewater regulations, have water quality protection programs that deal with both types of discharges in a coordinated and integrated way.

The City of Santa Ana lies within the jurisdiction of the Santa Ana Region. The regional board issues permits to the Orange County Permittees, which includes the County of Orange, Orange County Flood Control District and incorporated cities of Orange County. Since the program's inception, the County of Orange has served as the principal permittee[24].

All new developments and significant redevelopments require preparation of a NPDES post-construction storm water management plan in accordance with the most current Orange County Drainage Area Management Plan (DAMP) and the City of Santa Ana Local Implementation Plan (LIP) which includes all applicable BMPs for the Proposed Project. Appendix D reflects up-to-date conditions on the Project Site consistent with the current Orange County DAMP and the intent of the non-point source NPDES Permit for Waste Discharge Requirements for the County and City.

[24] https://www.santa-ana.org/pw/santa-ana-storm-water-program/storm-water-faq
Accessed November 12, 2019

Drainage from the Project Site would sheet flow in the north westerly directions, where runoff would then be collected in a concrete gutter. These gutters would convey the storm water into a biofiltration unit where water would be filtered and then discharged through a PVC pipe and into the back of the existing catch basin in Euclid Street. From the existing catch basin in Euclid Street, storm water flows in the northerly direction and then into a main storm drain line in Hazard Road. Storm water in the pipe in Hazard Road flows in the easterly direction until it is dispatched into the East Garden Grove Wintersburg Channel. Water flows in the southwesterly direction and deposited into Bolsa Bay, then to Huntington Harbour, Anaheim Bay, and eventually into the Pacific Ocean. The Proposed Project does not discharge directly to an environmentally sensitive area. The Proposed Project establishes best management practices (BMPs), prohibiting activities during operations such as discharging fertilizer, pesticides, or animal waste to the street or storm drain and prohibits vehicle or equipment washing, repair, or maintenance on-site. The Proposed Project would be subject to the City of Santa Ana's Municipal Code, Chapter 39 – Water and Sewers which regulates standards for discharge at the city level as well.

Therefore, potential impacts associated with the violation of any water quality standards or waste discharge requirements or otherwise substantially degrade the surface or groundwater quality would be less than significant and no mitigation would be required.

Mitigation Measures: No Mitigation Required.

Significance Determination After Mitigation: Less Than Significant.

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

Significance Determination: Less Than Significant Impact.

According to the City's Urban Water Management Plan (UWMP), the City relies on a combination of imported water, local groundwater, and recycled water to meet its water needs. The City works together with two primary agencies, Metropolitan Water District (Metropolitan) and Orange County Water District (OCWD) to ensure a safe and reliable water supply that will continue to serve the community in periods of drought and shortage. The sources of imported water supplies include water from the Colorado River and the SWP provided by Metropolitan. The City receives its water from two main sources, local well water from the Lower Santa Ana River Groundwater Basin, also known as the Orange County Groundwater Basin (OC Basin), which is managed by OCWD, and imported water from Metropolitan. The City is a member agency of Metropolitan.

The City's main source of water supply is groundwater from the OC Basin. Imported water and recycled water make up the rest of the City's water supply portfolio. Currently, the City relies on approximately 71 percent groundwater, 28 percent imported water, and 1 percent recycled water. The City's water supply portfolio is expected to change slightly to 70 percent groundwater, 29 percent imported water, and 0.7 percent recycled water by the year 2040. The Proposed Project is consistent with the existing General Plan Land Use designation of General Commercial (GC) and therefore the expected water

usage of the use is consistent with the UWMP. The Project Site not located within an OCWD designated groundwater recharge facility, as denoted in Figure 3-2 of the UWMP[25].

Appendix C details that groundwater was encountered at a depth of approximately 26 feet below grade. Historical high groundwater is anticipated to be less than five feet below grade. Appendix C recommends that the underground storage tanks be anchored and strapped to prevent tank uplift in the event of groundwater rise, which is included as a Project Design Feature. Since the Proposed Project includes a service station with USTs, it would be subject to routine inspection by federal, State, and local regulatory agencies with jurisdiction over service stations and fuel dispensing, as specified in Section 5.10(a) above. The Proposed Project, including the USTs and fuel delivery infrastructure, would comply with federal, State, and local regulatory agencies, including but not limited to regulation established by Section 2540.7, Gasoline Dispensing and Service Stations of the CAL OSHA regulations, Chapter 38 – Liquefied Petroleum Gases of the CFC, RCRA, and OCFA. The regulation and inspection by all such agencies mentioned above would ensure the Proposed Project operates in a manner that does not interfere with groundwater supplies or recharge. The Proposed Project also involves the construction of a biofiltration device on-site that would drain all storm water runoff into the single device located at the northeast end of the property. Water then would be dispatched into the existing curb and gutter in Euclid Street.

Therefore, potential impacts associated with decrease of groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin would be less than significant and no mitigation would be required.

Mitigation Measures: No Mitigation Required.

Significance Determination After Mitigation: Less Than Significant Impact.

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

   i. *Result in substantial erosion or siltation on- or off-site;*

Significance Determination: Less Than Significant Impact.

The Proposed Project would result in the drainage of all storm water runoff into a single proprietary biofiltration device located at the northeast end of the property. Water would be dispatched into the existing curb and gutter in Euclid Street. The Proposed Project would comply with all applicable local, state, and federal safety regulations including the current OSHA Excavation and Trench Safety Standards for any site excavation work. Excavations and temporary slopes on-site would be protected from superficial erosion and the effects of inclement weather by the project contractor, utilizing the best management practices and recommendations outlined in Appendix D, including, but not limited

[25] https://www.santa-ana.org/sites/default/files/Documents/urban_water_management_plan.pdf, page. 3-9. Accessed November 12, 2019

to the application of plastic or jute mesh to prevent surficial sloughing. Appendix E clarifies drainage patterns will not be altered; however, in the existing condition, storm water flows over the existing sidewalks on Euclid Street and Hazard Road. The Proposed Project would involve stormwater capture and treatment on-site prior to being dispatched to the public storm drain system. Therefore, potential impacts associated with the alteration of existing drainage patterns on-site that would result in substantial erosion or siltation on- or off-site would be less than significant and no mitigation would be required.

ii. Increase the rate or amount of surface runoff in a manner which would result in flooding in- or off-site;

Significance Determination: Less Than Significant Impact.

The drainage system was designed to meet or exceed the requirements of the Orange County Hydrology Manual, which was used to determine the design storm. The Project Site would be designed to drain all storm water runoff into a single proprietary biofiltration device located at the northeast end of the property. Water would be dispatched into the existing curb and gutter in Euclid Street. The 10, 25 and 100-year rainfall events would result in post-construction flow rates being greater than the preconstruction flow rates at the Project Site (Appendix E). The biofiltration device is proposed at a capacity that accounts for the post-construction flow rates, and drainage goals and requirements set by the Orange County Hydrology Manual would be met or exceeded by the proposed device. Therefore, potential impacts associated with an increased rate or amount of surface runoff in a manner which would result in flooding in- or off-site would be less than significant and no mitigation would be required.

iii. Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff; or

Significance Determination: Less Than Significant Impact.

Drainage from the Project Site would sheet flow in the north westerly directions, where runoff would then be collected in a concrete gutter. These gutters would convey the storm water into a biofiltration unit where water would be filtered and then discharged through a PVC pipe and into the back of the existing catch basin in Euclid Street. From the existing catch basin in Euclid Street, storm water flows in the northerly direction and then into a main storm drain line in Hazard Road. Storm water in the pipe in Hazard Road flows in the easterly direction until it is dispatched into the East Garden Grove Wintersburg Channel. Water flows in the southwesterly direction and deposited into Bolsa Bay, then to Huntington Harbour, Anaheim Bay, and eventually into the Pacific Ocean. The Project Site would not discharge directly to an environmentally sensitive area.

As stated above in Section 5.10©(ii), the drainage system was designed to meet or exceed the requirements of the Orange County Hydrology Manual, which was used to determine the design storm. The biofiltration device is proposed at a capacity that accounts for the post-construction flow rates, and drainage goals and requirements set by the Orange County Hydrology Manual would be met or exceeded by the proposed device. Therefore, potential impacts associated with exceeding the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff would be less than significant and no mitigation would be required.

Mitigation Measures: No Mitigation Required.

Significance Determination After Mitigation: Less Than Significant.

iv. Impede or redirect flood flows?

Significance Determination: Less Than Significant Impact.

As stated above in Section 5.10(c)(ii), the drainage system was designed to meet or exceed the requirements of the Orange County Hydrology Manual, which was used to determine the design storm. The site would drain all storm water runoff into a single proprietary biofiltration device located at the northeast end of the property. Water would be dispatched into the existing curb and gutter in Euclid Street. The 10, 25 and 100-year rainfall events were used as the design storm, which resulted in post-construction flow rates being greater than the preconstruction flow rates at the Project Site. The biofiltration device is proposed at a capacity that accounts for the post-construction flow rates, and drainage goals and requirements set by the Orange County Hydrology Manual would be met or exceeded by the proposed device. There are no streams or rivers on the Project Site, or in the immediate vicinity which would be impeded or redirected. Therefore, potential impacts associated with flood flows would be less than significant and no mitigation would be required.

Mitigation Measures: No Mitigation Required.

Significance Determination After Mitigation: Less Than Significant.

d) Would the project in flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

Significance Determination: Less Than Significant Impact.

According to Appendix G, the site is shown on FEMA Flood Insurance Rate Map 06059C0139J and is located in the Zone "X" which means there is a 0.2% annual chance of flood in the project area that does not have at least one foot of elevation separation between finished floor and site relief point. According to the City's General Plan's Public Safety Element, Exhibit 4 – *Flood Hazard Areas*, the Project Site is within a 100-year flood risk area of the City[26]. The Proposed Project involves a design that would grade the building finished floor to an elevation of 69.75 feet, which is more than one foot higher than the Project Site's secondary emergency flood relief elevation of 67.64, within the driveway along Euclid Street.

Seismic seiches are standing waves set up on rivers, reservoirs, ponds, and lakes when seismic waves from an earthquake pass through the area. They are in direct contrast to tsunamis which are giant sea waves created by the sudden uplift of the sea floor.[27] According to the California Department of Conservation Orange County Tsunami Inundation Maps, the Project Site is not located within an

[26] https://www.santa-ana.org/sites/default/files/Documents/PublicSafety.pdf
Page 17, Accessed November 13, 2019
[27] https://earthquake.usgs.gov/learn/topics/seiche.php

inundation area[28]. The nearest body of water to the Project Site is the Santa Ana River located approximately 1.5 miles to the east. Potential seiche impacts to the Project Site would be limited due to intervening topography and dense development between the Project Site and Santa Ana River.

Therefore, potential impacts associated with the risk of releasing pollutants due to project inundation would be less than significant and no mitigation would be required.

Mitigation Measures: No Mitigation Required.

Significance Determination After Mitigation: Less Than Significant Impact.

e) Would the project conflict or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Significance Determination: Less Than Significant Impact.

The Project Site not located within an OCWD designated groundwater recharge facility. The Project would not conflict or obstruct the County's NPDES program, UWMP, or Orange County Stormwater Resource Plan. The Proposed Project would include on-site capture and filtration and would not significantly alter drainage patterns on-site. Appendix D includes BMPs that are a part of the Proposed Project design which work to ensure the reduction of pollutants from construction and operation activities entering surface waters. Therefore, potential impacts associated with the conflict or obstruction of implementing a water quality control plan or sustainable groundwater management plan would be less than significant and no mitigation would be required.

Mitigation Measures: No Mitigation Required.

Significance Determination After Mitigation: Less Than Significant.

[28] https://www.conservation.ca.gov/cgs/tsunami/maps/Orange
Accessed November 13, 2019

5.11 LAND USE/PLANNING

Would the project:		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
(a)	Physically divide an established community?	☐	☐	☐	☒
(b)	Cause a significant environmental impact due to a conflict with any applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☒	☐

Impact Analysis

a) Would the project physically divide an established community?

Significance Determination: No Impact.

The Project Site is an approximate 0.64-acre parcel in an urbanized area of Santa Ana and Orange County that is surrounded by residential. The Proposed Project would involve a zone change and the construction of a service station with a 3,045 SF convenience store, 1,800 SF fuel canopy with four (4) fuel pumps that would service up to eight (8) vehicles at one time. The Proposed Project would also include ancillary improvements associated with the commercial use, such as landscaping, trash enclosure, signage (including monument sign) and site lighting. The Project Site was previously disturbed and developed prior to its existing state of vacancy. The Project Site is located at the corner of N. Euclid Street and W. Hazard Avenue, which are established public roads within the City. Surrounding development to the Project Site includes residential dwelling units to the north, west, and south, and a Buddhist Temple to the east. The Proposed Project does not physically impede or divide the existing communities, as it would include internal circulation for the proposed use and maintain access to and from the existing public roads. Therefore, no impacts associated with physically dividing an established community would occur.

Mitigation Measures: No Mitigation Required.

Significance Determination After Mitigation: No Impact.

b) Would the project cause a significant environmental impact due to a conflict with any applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

Significance Determination: Less Than Significant Impact.

As stated above in subsection (a), the Proposed Project would involve a zone change and the construction of a service station, fuel canopy, associated ancillary improvements. The Project Site's General Plan Land Use designation is General Commercial. The Proposed Project would involve a change in zoning designation from Two-Family Residential (R2) to Community Commercial (C1) which

would be consistent with the existing land use designation. The current zoning designation of R2 does not permit for service station uses; however, the General Plan states General Commercial districts are key components in the economic development of the City. They provide highly visible and accessible commercial development along the City's arterial transportation corridors. General Commercial land uses provide important neighborhood facilities and services, including shopping, recreation, cultural and entertainment activities, employment, and education, therefore, the Proposed Project would be more in line with the General Plan than the uses permitted under the existing Zoning designation of R2.

The Proposed Project would be subject to the City's Zoning Ordinance development standards, including Sections 41-364 through 41-374.5, and the City-Wide Design Guidelines. The Proposed Project's floor area ratio (FAR) would be under the 0.5 value stipulated by the General Commercial designation, and as such would be consistent with the General Plan's required standard. Therefore, potential impacts associated with a significant environmental impact due to conflicts with any applicable land use plan for the purpose of avoiding or mitigating an environmental effect would be less than significant and no mitigation would be required.

Mitigation Measures: No Mitigation Required.

Significance Determination After Mitigation: Less Than Significant Impact.

5.12 MINERAL RESOURCES

Would the project:		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
(a)	Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
(b)	Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒

Impact Analysis

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

Significance Determination: No Impact. According to the City's General Plan Land Use Element, there are no mineral extraction activities in the City[29]. Regionally significant resources are found farther north of the City, along the Santa Ana River within the cities of Orange and Anaheim. As an almost fully developed City there are no significant mineral aggregate resource areas (SMARA) designated within the City. There are oil fields and drilling operations abound in Newport Beach and Huntington Beach; however, the City is not known to lie above an oil or gas field. Therefore, no impacts to the availability of known mineral resources would occur and no mitigation would be required.

Mitigation Measures: No Mitigation required.

Significance Determination After Mitigation: No Impact.

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

Significance Determination: No Impact.

As stated above in subsection (a), the General Plan Land Use Element states there are no SMARA designated within the City nor are there any mineral extraction activities occurring within the City. The Project Site is currently a vacant parcel, which was previously disturbed and developed. The Proposed Project does not involve any mining operations that would impact the availability of a locally important mineral resource recovery site. Therefore, no impacts resulting in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan would occur and no mitigation would be required.

Mitigation Measures: No Mitigation required.

Significance Determination After Mitigation: No Impact.

[29] https://www.santa-ana.org/sites/default/files/pb/general-plan/documents/Land%20Use_0.pdf (pg. A-51) Accessed October 3, 2019

5.13 NOISE

Would the project result in:		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
(a)	Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☒	☐
(b)	Generation of excessive ground borne 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?	☐	☐	☐	☒

A Noise Impact Analysis was completed to determine potential impacts to noise associated with the development of the Proposed Project (Appendix H - *Noise Impact Analysis, 813 N Euclid Street Gas Station Project,* Vista Environmental, October 8, 2019).

Impact Analysis

a) 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?

Significance Determination: Less Than Significant Impact

The Proposed Project would not generate 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. The following section calculates the potential noise emissions associated with the temporary construction activities and long-term operations of the Proposed Project and compares the noise levels to the City standards.

Construction-Related Noise

The construction activities for the Proposed Project would include grading of the Project Site, building construction and application of architectural coatings to the proposed convenience market and gas station, and paving of the proposed parking lot and driveways. Noise impacts from construction activities associated with the Proposed Project would be a function of the noise generated by construction equipment, equipment location, sensitivity of nearby land uses, and the timing and duration of the construction activities. The nearest sensitive receptors to the Project Site are the multi-family homes located adjacent to the south side of the Project Site and the Buddhist temple located adjacent to the east side of the Project Site.

Section 18-314(e) of the City's Municipal Code exempts construction noise that occurs between 7:00 a.m. and 8:00 p.m. from the City's noise standards. All construction activities associated with the Proposed Project would occur during the allowable hours for construction activities as detailed in Section 18-314(e) of the Municipal Code. However, the City construction noise standards do not provide any limits to the noise levels that may be created from construction activities and even with adherence to the City standards, the resultant construction noise levels may result in a significant substantial temporary noise increase to the nearby residents.

In order to determine if the proposed construction activities would create a significant substantial temporary noise increase, the FTA construction noise criteria thresholds have been utilized, which shows that a significant construction noise impact would occur if construction noise exceeds 90 dBA Leq at any of the nearby sensitive receptors (Appendix H).

Table 13 – Construction Noise Levels at the Nearby Sensitive Receptors

Construction Phase	Construction Noise Level (dBA Leq) at:	
	Multi-Family Homes to South	Buddhist Temple to East
Grading	81	82
Building Construction & Painting	79	81
Paving	79	80
FTA Construction Noise Threshold	**90**	**90**
Exceed Threshold?	**No**	**No**

Source: RCNM, Federal Highway Administration, 2018

Table 13 - *Construction Noise Levels at the Nearby Sensitive Receptors* shows the greatest noise impacts would occur during the grading phase of construction, with a noise level as high as 82 dBA Leq at the Buddhist Temple to the east. Table 13 also shows none of the construction phases would exceed the FTA construction noise standard of 90 dBA. Therefore. through adherence to allowable construction times provided in Section 18-314(e) of the Municipal Code, potential construction impacts associated with a substantial temporary increase in ambient noise levels that are in excess of applicable noise standards would be less than significant and no mitigation would be required.

Operational-Related Noise

The Proposed Project would consist of the development of a convenience market and gas station. Potential noise impacts associated with the operations of the Proposed Project would be from project-generated vehicular traffic on the nearby roadways and from onsite activities, which are analyzed separately below.

Roadway Vehicular Noise

Vehicle noise is a combination of the noise produced by the engine, exhaust and tires. The level of traffic noise depends on three primary factors (1) the volume of traffic, (2) the speed of traffic, and (3) the number of trucks in the flow of traffic. The Proposed Project does not propose any uses that would require a substantial number of truck trips and the Proposed Project would not alter the speed limit on any existing roadway so the Proposed Project's potential offsite noise impacts have been focused on

the noise impacts associated with the change of volume of traffic that would occur with development of the Proposed Project.

Goal 1 of the City's General Plan Noise Element prevents significant increases in noise levels in the community; however, the General Plan does not define what constitutes a "significant increase in noise levels". This impact analysis utilizes guidance from the Federal Transit Administration for a moderate impact and is detailed in **Table 14** - *FTA Project Effects on Cumulative Noise Exposure* which shows the project contribution to the noise environment can range between 0 and 7 dB, which is dependent on the existing noise levels.

Table 14 – FTA Project Effects on Cumulative Noise Exposure

Existing Noise Exposure (dBA Leq or Ldn)	Allowable Noise Impact Exposure dBA Leq or Ldn		
	Project Only	Combined	Noise Exposure Increase
45	51	52	+7
50	53	55	+5
55	55	58	+3
60	57	62	+2
65	60	66	+1
70	64	71	+1
75	65	75	0

Source: Federal Transit Administration, 2018.

The potential offsite traffic noise impacts created by the on-going operations of the Proposed Project were analyzed through utilization of the FHWA model and parameters described in Appendix H and the FHWA model traffic noise calculation spreadsheets are provided in Appendix H. The Proposed Project's potential offsite traffic noise impacts were analyzed for the existing and year 2020 plus cumulative projects conditions; both are discussed separately below.

Existing Year Conditions

The Proposed Project's offsite traffic noise impacts were calculated through a comparison of the existing year scenario to the existing year with project scenario. The results of this comparison are shown in **Table 15** - *Existing Year Project Traffic Noise Contributions*.

Table 15 – Existing Year Project Traffic Noise Contributions

Roadway	Segment	dBA CNEL at Nearest Receptor[1]			Increase Threshold[2]
		Existing	Existing Plus Project	Project Contribution	
Euclid Street	North of Hazard Avenue	69.7	69.8	0.1	+1 dBA
Euclid Street	South of Hazard Avenue	72.5	72.6	0.1	+1 dBA
Euclid Street	South of Project Driveway	71.6	71.6	0.0	+1 dBA
Hazard Avenue	West of Euclid Street	68.8	68.9	0.1	+1 dBA
Hazard Avenue	East of Euclid Street	65.1	65.4	0.3	+1 dBA
Hazard Avenue	East of Project Driveway	66.5	66.7	0.2	+1 dBA
Euclid Street	North of Hazard Avenue	69.7	69.8	0.1	+1 dBA

Notes:
[1] Distance to nearest sensitive receptors use shown in Table H, does not take into account existing noise barriers.
[2] Increase Threshold obtained from the FTA's allowable noise impact exposures detailed above in Table 13..
Source: FHWA Traffic Noise Prediction Model FHWA-RD-77-108.

Table 15 shows the Proposed Project's permanent noise increases to the nearby sensitive receptors from the generation of additional vehicular traffic would not exceed the traffic noise increase thresholds detailed in Table 14. The Proposed Project would not result in a substantial permanent increase in ambient noise levels for the existing year conditions.

Year 2020 Plus Cumulative Projects Conditions

The Proposed Project's offsite traffic noise impacts have been calculated through a comparison of the year 2020 plus cumulative projects scenario to the year 2020 plus cumulative projects plus project scenario. The results of this comparison are shown in **Table 16** - *Year 2020 Plus Cumulative Projects Traffic Noise Contributions.*

Table 16 – Year 2020 Plus Cumulative Projects Traffic Noise Contributions

Roadway	Segment	dBA CNEL at Nearest Receptor[1]			Increase Threshold[2]
		Year 2020	Year 2020 Plus Project	Project Contribution	
Euclid Street	North of Hazard Avenue	69.9	70.0	0.1	+1 dBA
Euclid Street	South of Hazard Avenue	72.6	72.8	0.2	+1 dBA
Euclid Street	South of Project Driveway	71.7	71.8	0.1	+1 dBA
Hazard Avenue	West of Euclid Street	69.0	69.1	0.1	+1 dBA
Hazard Avenue	East of Euclid Street	65.5	65.7	0.2	+1 dBA
Hazard Avenue	East of Project Driveway	66.9	67.0	0.1	+1 dBA
Euclid Street	North of Hazard Avenue	69.9	70.0	0.1	+1 dBA

Notes:
[1] Distance to nearest sensitive receptors use shown in Table H, does not take into account existing noise barriers.
[2] Increase Threshold obtained from the FTA's allowable noise impact exposures detailed above in Table A..
Source: FHWA Traffic Noise Prediction Model FHWA-RD-77-108.

Table 16 shows the Proposed Project's permanent noise increases to the nearby sensitive receptors from the generation of additional vehicular traffic would not exceed the traffic noise increase thresholds detailed above. The Proposed Project would not result in a substantial permanent increase in ambient noise levels for the year 2020 plus cumulative projects conditions. Therefore, potential

impacts associated with a substantial permanent increase in ambient noise levels would be less than significant and no mitigation would be required.

Onsite Noise Sources

The operation of the Proposed Project may create an increase in onsite noise levels from the operation of rooftop mechanical equipment, parking lots, delivery trucks, gas pumps, and air/water machine. Section 18-312(a) of the City's Municipal Code limits noise created on any residential property line to 55 dBA between 7 a.m. and 10 p.m. and to 50 dBA between 10 p.m. and 7 a.m.

In order to determine the noise impacts from the operation of rooftop mechanical equipment, parking lots, delivery trucks, gas pumps, and air/water machine, reference noise measurements were taken of each noise source and are shown in **Table 17** - *Operational Noise Levels at the Adjacent Land Uses*. In order to account for the noise reduction provided by the existing 6-foot high sound walls on the south and east property lines, the wall attenuation algorithms from the *Technical Noise Supplement to the Traffic Noise Analysis Protocol* (TeNS), prepared by Caltrans, September 2013, were utilized and the noise calculation spreadsheet along with the reference noise measurements are provided in Appendix H.

Table 17 – Operational Noise Levels at the Adjacent Land Uses

	Multi-Family Homes to South		Buddhist Temple to East	
Noise Source	**Distance - Source to Property Line (feet)**	**Noise Level[1] (dBA Leq)**	**Distance - Source to Property Line (feet)**	**Noise Level[1] (dBA Leq)**
Rooftop Equipment[2]	35	40	10	49
Parking Lot[3]	10	46	35	38
Truck Delivery[4]	75	39	80	39
Air/Water[5]	7	53	90	34
Fueling Pumps[6]	75	37	100	34
Combined Noise Levels		**54**		**50**
City Noise Standard (day/night)		**55/50**		**55/50**
Exceed City Noise Standard?		**No/Yes**		**No/No**

Notes:
[1] The calculated noise levels account for the noise reduction provided by the existing 6-foot high walls on the south and east property lines.
[2] Rooftop equipment is based on a reference noise measurement of 66.6 dBA at 10 feet.
[3] Parking lot is based on a reference noise measurement of 63.1 dBA at 5 feet.
[4] Truck delivery is based on a reference noise measurement of 54.8 dBA at 30 feet.
[5] Air/water machine is based on a reference noise measurement of 66.9 dBA at 5 feet.
[6] Fueling pumps is based on a reference noise measurement of 61.7 dBA at 10 feet.
Source: Noise calculation methodology from Caltrans, 2013 (see Appendix E).

Table 17 shows the Proposed Project's worst-case operational noise from the simultaneous operation of all noise sources on the Project Site would create a noise level of 54 dBA at the multi-family homes to the south and 50 dBA at the Buddhist Temple to the east. The worst-case operational noise level of 50 dBA at the Buddhist Temple to the east would be within the City's noise standards of 55 dBA between 7 a.m. and 10 p.m. and to 50 dBA between 10 p.m. and 7 a.m.; however, the worst-case operational noise level at the multi-family homes to the south would be within the City's daytime noise standard of 55 dBA but would exceed the City's nighttime noise standard of 50 dBA. This would be considered a significant impact.

Upon review of the noise contributions of each noise source to the multi-family homes to the south, the primary source of noise is generated from the air/water dispensing machine that is located as near as 7-feet from the south property line and would create a noise level of 53 dBA at the multi-family homes to the south. The Applicant has agreed to implement, as a condition of approval to the Conditional Use Permit for 24-hour operations, that the air/water dispensing machine would be equipped with an automated control system that would be turned off between the hours of 10 p.m. and 7 a.m. The worst-case combined noise levels at the multi-family homes to the south found the noise level would be 48 dBA with the Air/Water dispensing machine turned off (Appendix H). Therefore, with implementation of this Condition of Approval, potential impacts associated with 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, would be less than significant.

Mitigation Measures: No Mitigation Required.

Significance Determination After Mitigation: Less Than Significant Impact.

b) Would the project result in the generation of excessive ground borne vibration or groundborne noise levels?

Significance Determination: Less Than Significant Impact with Mitigation Incorporated.

The Proposed Project would not expose persons to or generate excessive groundborne vibration or groundborne noise levels. The following section analyzes the potential vibration impacts associated with the construction and operation of the Proposed Project.

Construction-Related Vibration Impacts

Construction activities for the Proposed Project would include driving 30 piles in order to anchor the underground storage tanks to prevent uplift of the tanks in the event of a rise in groundwater, building construction and application of architectural coatings to the proposed convenience market and gas station, and paving of the proposed parking lot and driveways. Vibration impacts from construction activities associated with the Proposed Project would typically be created from the operation of heavy off-road equipment. The nearest sensitive receptors to the Project Site are the multi-family homes located adjacent to the south side of the Project Site and the Buddhist temple located adjacent to the east side of the Project Site.

Since neither the City's Municipal Code nor the General Plan provides a quantifiable vibration threshold level, Caltrans guidance detailed in Appendix H is utilized, which defines the threshold of perception from transient sources at 0.25 inch per second PPV.

The primary source of vibration during construction would be from the operation of a pile driver that would operate as near as 25 feet from the multi-family homes to the south. As shown in **Table 18** - *Vibration Source Levels for Construction Equipment*, an impact style pile driver typically creates a vibration level of 0.644 inch per second PPV at 25 feet. The vibration level at the nearest offsite

residential structure would exceed the 0.25 inch per second PPV threshold detailed above, which would be considered a significant impact.

Table 18 – Vibration Source Levels for Construction Equipment

Equipment		Peak Particle Velocity (inches/second)	Approximate Vibration Level (L_v)at 25 feet
Pile driver (impact)	Upper range	1.518	112
	typical	0.644	104
Pile driver (sonic)	Upper range	0.734	105
	typical	0.170	93
Clam shovel drop (slurry wall)		0.202	94
Vibratory Roller		0.210	94
Hoe Ram		0.089	87
Large bulldozer		0.089	87
Caisson drill		0.089	87
Loaded trucks		0.076	86
Jackhammer		0.035	79
Small bulldozer		0.003	58

Source: Federal Transit Administration, 2018.

MM NOI-1 would restrict the use of impact pile drivers during construction of the Proposed Project and require the installation of piles to be installed with a sonic-style pile driver or other type of pile driver that produces similar vibration levels as a sonic pile driver. A sonic style pile driver typically creates a vibration level of 0.0170 inch per second PPV at 25 feet. With implementation of **MM NOI-1,** potential vibration impacts associated with construction would be less than significant.

Operations-Related Vibration Impacts

The Proposed Project would consist of the operation of a convenience market and gas station. The on-going operation of the Proposed Project would not include the operation of any known vibration sources.

Therefore, with implementation of **MM NOI-1**, potential impacts associated with generation of excessive ground borne vibration or ground borne noise levels would be less than significant.

Mitigation Measures:

MM NOI-1: Prior to the issuance of a grading permit, the Property Owner/Developer shall include a note on the plans that impact pile drivers shall not be used during construction of the Proposed Project. Piles shall be installed with a sonic-style pile driver or other type of pile driver that produces similar vibration levels as a sonic pile driver.

Significance Determination After Mitigation: Less Than Significant Impact.

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?

Significance Determination: No Impact.

The Proposed Project would not expose people residing or working in the project area to excessive noise levels from aircraft. The nearest airport is the Joint Forces Training Base Los Alamitos Airfield, located approximately 6.8 miles northwest of the Project Site. The Project Site is located outside of the 60 dBA CNEL noise contours of the Airfield and no impacts would occur from aircraft noise. Therefore, no impacts associated with exposure of people residing or working in the project area to excessive noise levels from an airstrip or public or private use airport would occur and no mitigation would be required.

Mitigation Measures: No Mitigation Required.

Significance Determination After Mitigation: No Impact.

5.14 POPULATION AND HOUSING

Would the project:		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
(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?	☐	☐	☐	☒

Impact Analysis

a) Would the project include 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)?

Significance Determination: Less Than Significant Impact.

The CEQA Guidelines Section 15126.2(e) state growth-inducing impacts are not assumed to be beneficial, detrimental, or of little significance to the environment, but that a proposed project should be assessed in how it could foster economic growth or population growth, or the construction of additional housing, either directly or indirectly.

The most immediate presence of potential growth related to the Proposed Project would be the labor force associated with the construction and operation of the service station use. Since the Project Site is in an urban and built-up area, the labor force associated with the construction and operation of the Proposed Project would likely be comprised of persons from the surrounding and existing workforce within Santa Ana and surrounding Orange County area. The Proposed Project does not propose any residential dwelling units and would not result in direct or indirect growth of population growth. Therefore, potential impacts associated with unplanned population growth would be less than significant and no mitigation would be required.

Mitigation Measures: No Mitigation Required.

Significance Determination After Mitigation: Less Than Significant Impact.

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

Significance Determination: No Impact.

The Proposed Project would be developed on a vacant site and would not require the removal of existing housing or people. Therefore, no impacts associated with the displacement of existing people or housing would occur.

Mitigation Measures: No Mitigation Required.

Significance Determination After Mitigation: No Impact.

5.15 PUBLIC SERVICES

	Would the project	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
(a)	Result in substantial adverse physical impacts associated with the provision of or need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
	i) Fire Protection?	☐	☐	☒	☐
	ii) Police Protection?	☐	☐	☒	☐
	iii) Schools?	☐	☐	☒	☐
	iv) Parks?	☐	☐	☒	☐
	v) Other public facilities?	☐	☐	☒	☐

Impact Analysis

(a) Would the project result in substantial adverse physical impacts associated with the provision of or need for new or physically altered government facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objective for any of the public services:

i) Fire Protection?

Significance Determination: Less Than Significant Impact.

The City contracts fire department services with the Orange County Fire Authority (OCFA) which fulfills both fire protection and emergency medical responsibilities. The OCFA operates ten stations throughout Santa Ana and has access to an additional 61 stations in its service area. These stations are well distributed, at an approximate of 1 ½ mile service radii throughout the City and the overlapping responsibility of fire companies allows adequate response to emergencies. The first fire unit response goal (travel time) is less than 5 minutes.

Fire Station No. 78 located at 501 N. Newhope Street is the closest station to the Project Site, approximately .5 miles to the southeast. The Proposed Project would involve a zone change and the construction of a service station with a 3,045 SF convenience store, 1,800 SF fuel canopy with four (4) fuel pumps that would service up to eight (8) vehicles at one time. The Proposed Project would also include ancillary improvements associated with the commercial use, such as landscaping, trash enclosure, signage (including monument sign) and site lighting. The Proposed Project would not involve the construction of residential units which could lead to a population increase and therefore the need for additional fire services. Prior to approval of the Proposed Project, review by the City's Building Division and OCFA to ensure compliance with the 2020 California Building Code and California

Fire Code. Therefore, potential impacts associated with the need for new or physically altered government facilities would be less than significant and no mitigation would be required.

ii) Police Protection?

Significance Determination: Less Than Significant Impact.

The City's central police station is a four-level facility which meets the administrative space requirements for 566-plus employees. The existing police administration facility promotes internal efficiency and takes advantage of the proximity of Courts, County Jail and other government facilities. The police department maintains two Public Safety Satellite Offices or communications points in the community rather than traditional precinct stations. The nearest police station to the Project Site is the Westend District Sub-Station, located approximately 1.4 miles to the southeast.

The Proposed Project would involve a zone change and the construction of a service station with a 3,045 SF convenience store, 1,800 SF fuel canopy with four (4) fuel pumps that would service up to eight (8) vehicles at one time. The Proposed Project would also include ancillary improvements associated with the commercial use, such as landscaping, trash enclosure, signage (including monument sign) and site lighting. The Proposed Project would not involve the construction of residential units which could lead to a population increase and therefore the need for additional police services. Therefore, potential impacts associated with the need for new or physically altered government facilities would be less than significant and no mitigation would be required.

iii) Schools?

Significance Determination: Less Than Significant Impact.

The City of Santa Ana is included within the jurisdiction of four school districts: Santa Ana Unified, Garden Grove Unified, Tustin Unified and Orange Unified. The facilities of Santa Ana Unified School District account for over 90 percent of school resources available in the City. These facilities are over-enrolled with respect to current available space. Elementary enrollment (K-5) is over-enrolled by approximately 2,500 students; however, the Proposed Project would not involve the construction of residential units which would have the potential to increase student populations within the City. Therefore, potential impacts associated with the need for new or physically altered government facilities, such as schools, would be less than significant and no mitigation would be required.

iv) Parks?

Significance Determination: Less Than Significant Impact.

Santa Ana presently has about 400 acres of public park and recreation facilities distributed generally uniformly throughout the City. Approximately two acres of open space exists for each 1,000 residents, a rate consistent with prevailing standards[30]. The Proposed Project would involve a zone change and

[30] https://www.santa-ana.org/sites/default/files/Documents/OpenSpace_Parks_Rec.pdf (pg. 9) Accessed October 4, 2019

the construction of a service station with a 3,045 SF convenience store, 1,800 SF fuel canopy with four (4) fuel pumps that would service up to eight (8) vehicles at one time. The Proposed Project would also include ancillary improvements associated with the commercial use, such as landscaping, trash enclosure, signage (including monument sign) and site lighting. The Proposed Project would not introduce a substantial number of new residents into the area which would increase the use of existing parks and reduce performance objectives. Therefore, potential impacts associated with an increase in use of existing neighborhood and regional parks would be less than significant and no mitigation would be required.

v) Other public facilities?

Significance Determination: Less Than Significant Impact.

The City library system consists of a central library in Civic Center' Plaza and two branch libraries in the western portion of Santa Ana: the McFadden and Newhope Branches. The library has a combined annual circulation of approximately 900,000 volumes. The Central library Is approximately 40,000 square feet in size, and the branches are approximately 8,500 square feet each[31].

The principal cultural facility in Santa Ana is the Bowers Museum. The Bowers Museum describes the history and earlier culture of the Santa Ana Orange County region Current plans call for expansion in two phases to approximately four times its present size[32].

The Proposed Project would involve a zone change and the construction of a service station with a 3,045 SF convenience store, 1,800 SF fuel canopy with four (4) fuel pumps that would service up to eight (8) vehicles at one time. The Proposed Project would also include ancillary improvements associated with the commercial use, such as landscaping, trash enclosure, signage (including monument sign) and site lighting. The Proposed Project would not involve the construction of residential dwelling units which could increase the City's population and thereby increase the use of other public facilities in a manner that would result in unacceptable service ratios, response times or other performance objectives. Therefore, potential impacts associated with the need for new or physically altered government facilities, such as libraries, would be less than significant and no mitigation would be required.

Mitigation Measures: No Mitigation Required.

Significance Determination After Mitigation: Less Than Significant.

[31] https://www.santa-ana.org/sites/default/files/Documents/PublicFacilities.pdf (pg. 10) Accessed October 4, 2019
[32] https://www.santa-ana.org/sites/default/files/Documents/PublicFacilities.pdf (pg. 10) Accessed October 4, 2019

5.16 RECREATION

Would the project		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
(a)	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)	Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒

Impact Analysis

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

Significance Determination: Less Than Significant Impact.

Santa Ana presently has about 400 acres of public park and recreation facilities distributed generally uniformly throughout the City. Approximately two acres of open space exists for each 1,000 residents, a rate consistent with prevailing standards[33]. The Proposed Project would involve a zone change and the construction of a service station with a 3,045 SF convenience store, 1,800 SF fuel canopy with four (4) fuel pumps that would service up to eight (8) vehicles at one time. The Proposed Project would also include ancillary improvements associated with the commercial use, such as landscaping, trash enclosure, signage (including monument sign) and site lighting. The Proposed Project would not introduce a substantial number of new residents into the area which would increase the use of existing parks or other recreational facilities resulting in physical deterioration. Therefore, potential impacts associated with an increase in use of existing neighborhood and regional parks would be less than significant and no mitigation would be required.

Mitigation Measures: No Mitigation Required.

Significance Determination After Mitigation: Less Than Significant Impact.

[33] https://www.santa-ana.org/sites/default/files/Documents/OpenSpace_Parks_Rec.pdf (pg. 9) Accessed October 4, 2019

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

Significance Determination: No Impact.

The Proposed Project would not involve the construction of expansion of recreational facilities which would have an adverse physical effect on the environment. The Proposed Project would involve a zone change and the construction of a service station with a 3,045 SF convenience store, 1,800 SF fuel canopy with four (4) fuel pumps that would service up to eight (8) vehicles at one time. The Proposed Project would also include ancillary improvements associated with the commercial use, such as landscaping, trash enclosure, signage (including monument sign) and site lighting. Therefore, no impacts associated with the construction of expansion of recreational facilities would occur and no mitigation would be required.

Mitigation Measures: No Mitigation Required.

Significance Determination After Mitigation: No Impact.

5.17 TRANSPORTATION

Would the project:		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
(a)	Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☐	☒	☐	☐
(b)	Would the project conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?	☐	☐	☒	☐
(c)	Substantially increase hazards due to a geometric design feature (e. g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☒	☐
(d)	Result in inadequate emergency access?	☐	☐	☒	☐

A Traffic Impact Assessment was completed to determine potential impacts to traffic associated with the development of the Proposed Project (Appendix I – *Focused Traffic Impact Assessment for the Proposed 813 N. Euclid Street Gas Station Project,* Linscott, Law & Greenspan Engineers, October 18, 2019).

The Project Site is currently vacant. The Proposed Project would consist of a service station with a 3,045 SF convenience store and 1,800 SF fuel canopy with four (4) pumps that would accommodate up to eight (8) vehicles at once. Access to the Project Site would be provided via one right-turn in/right-turn out only driveway located along Euclid Street and via one left-turn in/right-turn in/right-turn out only driveway located along Hazard Avenue.

Appendix I includes existing traffic counts, estimated project and estimated cumulative project traffic generation, distribution and assignment, AM and PM peak hour analyses of existing conditions, existing plus project, and for Year 2020 cumulative with and without project traffic conditions. The Traffic Impact Assessment includes a left-turn queueing evaluation for Euclid Street and Hazard Avenue, and mitigation measures associated with the Proposed Project.

Existing Conditions

Existing Roadway Conditions

Appendix I, Figure 4 – *Existing Roadway Conditions and Intersection Controls* presents an inventory of the existing roadway conditions for the key study intersection of Euclid Street at Hazard Avenue. This figure identifies the number of travel lanes and controls for the key study intersection.

Existing Traffic Volumes

AM peak hour and PM peak hour traffic counts were collected by Transportation Studies Inc. (TSI) on September 5, 2019 at the intersection of Euclid Street at Hazard Avenue in order to develop the baseline peak hour traffic volume data for the intersection analysis. Appendix I, Figure 5 – *Existing AM and PM Peak Hour Traffic Volumes* illustrates the existing AM and PM peak hour traffic volumes at the

intersection of Euclid Street at Hazard Avenue. Appendix A of the Traffic Impact Assessment (Appendix I) contains the detailed peak hour traffic count sheets for the intersection of Euclid Street at Hazard Avenue.

Intersection Peak Hour Level of Service Methodology

The City of Santa Ana utilizes Level of Service (LOS) metrics for analyzing potentially significant transportation impacts. AM and PM peak hour operating conditions for the key signalized intersection were evaluated using the Intersection Capacity Utilization (ICU) methodology. The ICU technique is intended for signalized intersection analysis and estimates the volume to capacity (V/C) relationship for an intersection based on the individual V/C ratios for key conflicting traffic movements. The ICU numerical value represents the percent signal (green) time, and thus capacity, required by existing and/or future traffic. It should be noted that the ICU methodology assumes uniform traffic distribution per intersection approach lane and optimal signal timing.

Per City of Santa Ana requirements, the ICU calculations use a lane capacity of 1,700 vehicles per hour (vph) for through lanes and 1,600 vph for left-turn lanes and right-turn lanes. A clearance adjustment factor of 0.05 was added to each Level of Service calculation. The ICU value translates to a LOS estimate, which is a relative measure of the intersection performance. The ICU value is the sum of the critical volume to capacity ratios at an intersection; it is not intended to be indicative of the LOS of each of the individual turning movements. The six qualitative categories of Level of Service have been defined along with the corresponding ICU value range and are shown in **Table 19 -** *Level of Service Criteria for Signalized Intersections*.

Table 19 - Level of Service Criteria for Signalized Intersections[34]

Level of Service (LOS)	Intersection Capacity Utilization Value (V/C)	Level of Service Description
A	≤ 0.60	EXCELLENT. No vehicle waits longer than one red light, and no approach phase is fully used.
B	0.61 – 0.70	VERY GOOD. An occasional approach phase is fully utilized; many drivers begin to feel somewhat restricted within groups of vehicles.
C	0.71 – 0.80	GOOD. Occasionally drivers may have to wait through more than one red light; backups may develop behind turning vehicles.
D	0.81 – 0.90	FAIR. Delays may be substantial during portions of the rush hours, but enough lower volume periods occur to permit clearing of developing lines, preventing excessive backups.
E	0.91 – 1.00	POOR. Represents the most vehicles intersection approaches can accommodate; may be long lines of waiting vehicles through several signal cycles.
F	> 1.00	FAILURE. Backups from nearby locations or on cross streets may restrict or prevent movement of vehicles out of the intersection approaches. Potentially very long delays with continuously increasing queue lengths.

Minimum LOS Thresholds and Significant Traffic Impact Criteria

Per City of Santa Ana requirements, impacts to local and regional transportation systems are considered significant if:

- An unacceptable peak hour Level of Service (LOS) at any of the key intersections is projected. The City of Santa Ana considers LOS D (ICU = 0.801 - 0.900) to be the minimum acceptable LOS for all intersections, except for those locations located within the City's defined major development areas, where LOS E is considered acceptable. Based on the above, LOS D is the requirement for the intersection of Euclid Street at Hazard Avenue as it is not located within a major development area per Exhibit A-5 of the General Plan Land Use Element.

- The project increases traffic demand at the study intersection by 1% of capacity (ICU increase ≥ 0.010), causing or worsening LOS E or LOS F (V/C > 0.900).

[34] Source: *Transportation Research Board Circular 212 – Interim Materials on Highway Capacity*.

Impact Analysis

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

Significance Determination: Less Than Significant Impact with Mitigation Incorporated.

Project Traffic Characteristics

Project Trip Generation

Traffic generation is expressed in vehicle trip ends, defined as one-way vehicular movements, either entering or exiting the generating land use. Generation rates used in this analysis are based on information found in the 10th Edition of *Trip Generation*, published by the Institute of Transportation Engineers (ITE) [Washington, D.C., 2017].

Table 20 - *Project Traffic Generation Forecast* summarizes the trip generation rates used in forecasting the vehicular trips generated by the proposed Project and presents the forecast daily and peak hour project traffic volumes for a "typical" weekday. As shown in Table 20, the trip generation potential of the proposed Project was estimated based on ITE Land Use Code 853: Convenience Market with Gasoline Pumps trip rates.

Table 20 – Project Traffic Generation Forecast[35]

ITE Land Use Code / Project Description	Daily	AM Peak Hour			PM Peak Hour		
		Enter	Exit	Total	Enter	Exit	Total
Generation Rates:							
▪ 853: Convenience Market with Gasoline Pumps (TE/VFP)	322.50	50%	50%	20.76	50%	50%	23.04
Generation Forecasts:							
▪ 813 N. Euclid Street Gas Station Project (8 VFP)	2,580	83	83	166	92	92	184
Pass-By (Daily: 25%, AM: 63%, PM: 66%)[36]	-645	-52	-52	-104	-61	-61	-122
Total Proposed Project Trip Generation	**1,935**	**31**	**31**	**62**	**31**	**31**	**62**

Notes:
- TE/VFP = Trip end per vehicle fueling position

The Proposed Project is forecast to generate 1,935 daily trips, with 62 trips (31 inbound, 31 outbound) produced in the AM peak hour and 62 trips (31 inbound, 31 outbound) produced in the PM peak hour

35 Source*: Trip Generation, 10th Edition*, Institute of Transportation Engineers, (ITE) [Washington, D.C. (2017)].

36 Source: *Trip Generation Handbook, 3rd Edition*, which recommends an AM peak hour pass-by of 63% and a PM peak hour pass-by of 66%. The daily pass-by is estimated to be 25%.

on a "typical" weekday. The overall project trip generation includes adjustments for pass-by as recommended by ITE. The pass-by reduction factors that are utilized in Appendix I are based on information published in the Trip Generation Handbook, 3rd Edition, published by ITE (2014). The trip generation methodology and forecasts were approved by City of Santa Ana staff prior to proceeding with full analysis detailed in Appendix I.

Project Trip Distribution and Assignment

The directional traffic distribution pattern for the Proposed Project is presented in Appendix I, Figure 6 – *Project Traffic Distribution Pattern*. Project traffic volumes both entering and exiting the Project Site are distributed and assigned to the adjacent street system based on the following considerations:

- The Project Site's proximity to major traffic carriers and regional access routes;
- Expected localized traffic flow patterns based on adjacent street channelization, and presence of traffic signals;
- Existing traffic volumes, and;
- Ingress/egress availability at the Project Site.

The anticipated AM and PM peak hour traffic volumes associated with the Proposed Project at the key study intersection of Euclid Street at Hazard Avenue and at the project driveways are presented in Appendix I, Figure 7 – *AM and PM Peak Hour Project Only Traffic Volumes*. The traffic volume assignments (Figure 7) reflect the traffic distribution characteristics shown in Appendix I, Figure 6 and the traffic generation forecast presented in Table 20.

Future Traffic Conditions

Existing Plus Project Traffic Volumes

The Existing plus Project traffic conditions were generated based upon existing conditions and the estimated Proposed Project traffic. These forecast traffic conditions were prepared pursuant to the City's requirement, which requires the potential impacts of a project be evaluated upon the circulation system, as it currently exists. This traffic volume scenario, and the related analysis, identifies the roadway improvements necessary to mitigate the direct traffic impacts of the Project, if any.

Appendix I, Figure 8 – *Existing Plus Project AM and PM Peak Hour Traffic Volumes* presents the projected AM and PM peak hour traffic volumes at the key study intersection and at the project driveways with the addition of the trips generated by the Proposed Project to existing peak hour traffic volumes.

Year 2020 Plus Project Traffic Volumes

Horizon year, background traffic growth estimates were calculated using an ambient growth factor. The ambient traffic growth factor is intended to include unknown and future cumulative projects in the study area, as well as account for regular growth in traffic volumes due to the development of projects outside the study area. The future growth in traffic volumes was calculated at one percent (1.0%) per year. Applied to existing Year 2019 traffic volumes results in a one percent (1.0%) growth in existing volumes to horizon year 2020.

In order to make a realistic estimate of future on-street conditions prior to implementation of the Proposed Project, the status of other known development projects (cumulative projects) in the vicinity of the Proposed Project was researched at the Cities of Santa Ana, Garden Grove and Westminster. With this information, the potential impact of the Proposed Project can be evaluated within the context of the cumulative impact of all ongoing development. Within the vicinity of the Project Site there are eighteen (18) cumulative projects in the City of Santa Ana, four (4) cumulative projects in the City of Garden Grove and one (1) cumulative project in the City of Westminster that have either been built, but not yet fully occupied, or are being processed for approval. These twenty-three (23) cumulative projects are included as part of the cumulative background setting in addition to the inclusion of an ambient traffic growth factor, which provides a conservative forecast. The locations of the twenty-three (23) cumulative projects are presented in Appendix I, Figure 9 – *Location of Cumulative Projects*.

Appendix I, Table 3 provides the location and a brief description for each of the twenty-three (23) cumulative projects. Appendix I, Table 4 summarizes the trip generation potential for all twenty-three (23) cumulative projects on a daily and peak hour basis for a typical weekday. The cumulative projects are expected to generate 8,303 daily trips, with 633 trips (266 inbound, 367 outbound) anticipated during the AM peak hour and 648 trips (355 inbound, 293 outbound) produced during the PM peak hour.

The AM and PM peak hour traffic volumes associated with the twenty-three (23) cumulative projects in the Year 2020 are presented in Appendix I, Figure 10 – *AM and PM Peak Hour Cumulative Projects Only Traffic Volumes*. Appendix I, Figure 11 – *Year 2020 Cumulative AM and PM Peak Hour Traffic Volumes* presents the Year 2020 AM and PM peak hour cumulative traffic volumes at the key study intersection. Appendix I, Figure 12 - *Year 2020 Cumulative Plus Project AM and PM Peak Hour Traffic Volumes* illustrates the Year 2020 forecast AM and PM peak hour traffic volumes at the key study intersection and at the project driveways with the inclusion of the trips generated by the Proposed Project.

Existing Plus Project Capacity Analysis

Table 21 - *Existing Plus Project Peak Hour Intersection Capacity Analysis* summarizes the peak hour level of service results at the intersection of Euclid Street at Hazard Avenue for Existing plus Project traffic conditions. Column one of Table 21 indicates the intersection of Euclid Street at Hazard Avenue currently operate at an unacceptable LOS E during the AM peak hour and at acceptable LOS C during the PM peak hour. Review of columns two and three of Table 21 indicates that traffic associated with the Proposed Project would significantly impact the intersection of Euclid Street at Hazard Avenue, when compared to the LOS standards and significant impact criteria specified Appendix I. **MM TRANS-1** would require that the Property Owner/Developer pay its fair share of 35% of the cost to restripe Hazard Avenue to provide a second eastbound through lane and modify the existing traffic signal. As shown in column four of Table 21, implementation of **MM TRANS-1** at the impacted key study intersection would completely offset the impact of project traffic, and the key study intersection is forecast to operate at an acceptable LOS during the AM and PM peak hours. Appendix B of the Traffic Impact Assessment contains the existing and existing plus project AM peak hour and PM peak hour ICU/LOS calculation worksheets for the key study intersection.

Table 21 - Existing Plus Project Peak Hour Intersection Capacity Analysis

Key Intersection	Minimum Acceptable LOS	Time Period	(1) Existing Traffic Conditions		(2) Existing Plus Project Traffic Conditions		(3) Project Significant Impact		(4) Existing Plus Project With Improvements	
			ICU	LOS	ICU	LOS	Increase	Yes/No	ICU	LOS
1. Euclid Street at Hazard Avenue	D	AM	**0.918**	**E**	**0.944**	**E**	**0.026**	**Yes**	0.840	D
		PM	0.743	C	0.772	C	0.029	No	0.747	C

Year 2020 Plus Project Capacity Analysis

Table 22 - *Year 2020 Cumulative Plus Project Peak Hour Intersection Capacity Analysis* summarizes the peak hour level of service results at the intersection of Euclid Street at Hazard Avenue for Year 2020 Cumulative plus Project traffic conditions. Column two of Table 22 indicates the addition of ambient traffic growth and cumulative project traffic would adversely impact the intersection of Euclid Street at Hazard Avenue. The key study intersection is forecast to continue to operate at an unacceptable LOS E during the AM peak hour and at acceptable LOS C during the PM peak hour with the addition of ambient traffic growth and cumulative project traffic.

Table 22 - Year 2020 Cumulative Plus Project Peak Hour Intersection Capacity Analysis

Key Intersection	Minimum Acceptable LOS	Time Period	(1) Existing Traffic Conditions		(2) Year 2020 Cumulative Traffic Conditions		(3) Year 2020 Cumulative Plus Project Traffic Conditions		(4) Project Significant Impact		(5) Year 2020 Cumulative Plus Project With Improvements	
			ICU	LOS	ICU	LOS	ICU	LOS	Increase	Yes/No	ICU	LOS
1. Euclid Street at Hazard Avenue	D	AM	**0.918**	**E**	**0.956**	**E**	**0.983**	**E**	**0.027**	**Yes**	0.871	D
		PM	0.743	C	0.783	C	0.813	D	0.030	No	0.778	C

Review of columns three and four of Table 22 indicates traffic associated with the Proposed Project would cumulatively impact the intersection of Euclid Street at Hazard Avenue, when compared to the LOS standards and significant impact criteria specified Appendix I. As shown in column five of Table 22, the implementation of **MM TRANS-1** at the impacted key study intersection completely offsets the impact of project traffic, and the key study intersection is forecast to operate at an acceptable LOS during the AM and PM peak hours. Appendix B of the Traffic Impact Assessment (Appendix I) also contains the Year 2020 AM peak hour and PM peak hour ICU/LOS calculation worksheets for the key study intersection.

Intersection Left-Turn Queuing Analysis

Appendix I addresses concerns regarding AM peak hour and PM peak hour left turn stacking/storage lengths for the intersection of Euclid Street at Hazard Avenue. The queuing evaluation was conducted based on projected Year 2020 peak hour traffic volumes (with and without the Proposed Project) and the Highway Capacity Manual (HCM) signalized methodology.

Table 23 - *Year 2020 Peak Hour Intersection Left-Turn Queuing Analysis* presents the Year 2020 left turn queuing analysis results for the intersection of Euclid Street at Hazard Avenue. The provided storage is based on the formally striped left-turn pocket; however, the effective storage is much longer given that each striped left-turn lane continues into a two-way-left-turn-lane. Based on the effective storage, adequate storage is provided to satisfy the Year 2020 plus Project 95th percentile queues for all four (4) left-turn lanes at the intersection of Euclid Street at Hazard Avenue.

Appendix I, Figure 13 – *Intersection Left-Turn Queueing Analysis* illustrates the results of the intersection left-turn queuing analysis for the intersection of Euclid Street at Hazard Avenue. The 95th percentile queues can be accommodated within the effective left-turn pocket storage, which includes the two-way-left-turn lanes. Appendix C of the Traffic Impact Assessment (Appendix I) contains the Year 2020 AM peak hour and PM peak hour HCM/LOS calculation worksheets for the key study intersection.

Table 23 - Year 2020 Peak Hour Intersection Left-Turn Queuing Analysis[37]

Key Study Intersection	Storage Provided (ft.)	(1) Year 2020 Cumulative Traffic Conditions				(2) Year 2020 Cumulative Plus Project Traffic Conditions				(3) Year 2020 Cumulative Plus Project With Improvements Traffic Conditions			
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
		Max. Queue (ft.)	Adequate Storage Yes / No	Max Queue (ft.)	Adequate Storage Yes / No	Max. Queue (ft.)	Adequate Storage Yes / No	Max. Queue (ft.)	Adequate Storage Yes / No	Max. Queue (ft.)	Adequate Storage Yes / No	Max. Queue (ft.)	Adequate Storage Yes / No
1. Euclid Street at Hazard Avenue													
▪ Northbound Left-Turn	150' [a]	283'	Yes	213'	Yes	330'	Yes	252'	Yes	306'	Yes	252'	Yes
▪ Southbound Left-Turn	170' [a]	133'	Yes	106'	Yes	203'	Yes	144'	Yes	169'	Yes	135'	Yes
▪ Eastbound Left-Turn	100' [a]	227'	Yes	182'	Yes	232'	Yes	183'	Yes	226'	Yes	180'	Yes
▪ Westbound Left-Turn	70' [a]	155'	Yes	49'	Yes	218'	Yes	50'	Yes	98'	Yes	41'	Yes

Notes:
[a] = The storage shown is only for the striped left-turn pocket. However, the effective storage is much longer given that the striped left-turn lane continues into a two-way-left-turn-lane.

[37] Queue is based on the *95th Percentile Queue* and is reported in total queue length (feet) per lane for signalized intersections.

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Site Access Analysis

Table 24 - *Project Driveway Levels of Service Summary* shows the levels of service at the two (2) Proposed Project driveways for Year 2020 Cumulative plus Project traffic conditions. The operations analysis for the two (2) driveways is based on the Highway Capacity Manual 6 (HCM 6) Method of Analysis for unsignalized intersections. The two (2) Project driveways are forecast to operate at acceptable LOS D or better during the AM and PM peak hours under Year 2020 Cumulative plus Project traffic conditions. Therefore, the Proposed Project access would be adequate; motorists entering and exiting the Project Site would be able to do so comfortably, safely, and without undue congestion. Appendix D of the Traffic Impact Assessment (Appendix I) contains the Year 2020 AM peak hour and PM peak hour HCM/LOS calculation worksheets for the project driveways.

Table 24 - Project Driveway Levels of Service Summary

Project Driveway	Time Period	Intersection Control	Year 2020 Cumulative Plus Project Traffic Conditions	
			HCM	LOS
-- Euclid Street at Project Driveway No. 1	AM	One-Way	20.9 s/v	C
	PM	Stop	33.6 s/v	D
-- Project Driveway No. 2 at Hazard Avenue	AM	One-Way	12.7 s/v	B
	PM	Stop	11.8 s/v	B

Notes:

- s/v = seconds per vehicle

The Proposed Project would be expected to pay a proportional "fair-share" of the improvement costs of the cumulatively impacted intersection to mitigate the Proposed Project's traffic impacts. **Table 25** - *Year 2020 Project Fair Share Contribution* presents the percentage of net traffic impact at the study intersection cumulatively impacted by the Proposed Project for Year 2020 traffic conditions. Column one presents a total of all intersection peak hour movements for existing traffic conditions and column two presents Project only traffic conditions. Column three presents future Year 2020 traffic conditions with Project traffic and column four represents what percentage of total intersection peak hour traffic is Project-related traffic. The fair-share contribution for the Proposed Project would be 35%.

Table 25 - Year 2020 Project Fair Share Contribution

Key Intersections	Impacted Time Period	(1) Existing Traffic	(2) Project Only Traffic	(3) Year 2020 Cumulative Plus Project Traffic	(4) Net Project Percent Increase
1. Euclid Street at Hazard Avenue	AM	4,855	82	5,089	**35.0%**

Notes:
Net Project Percent Increase (4) = [Column (2)] / [Column (3) – Column (1)]

Transit

Pursuant to Public Resource Code 21064.3, an existing major transit stop is defined as a site containing an existing rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods. The Orange County Transportation Authority (OCTA) operates two bus lines which run in intervals of 15 minutes or less: Route 37 and Route 560[38], located within one-half mile of the Project Site. The nearest Route 37 bus stop is located across W. Hazard Avenue, approximately 200-feet to the north, and the nearest Route 560 stop is located approximately .49 miles to the north of the Project Site on Westminster Avenue. The Proposed Project would not conflict with a program, plan, ordinance or policy addressing transit serving the Project Site.

Bicycle and Pedestrian Facilities

The City of Santa Ana General Plan Circulation Element identifies Euclid Avenue as a Major Arterial, and Hazard Street as a Secondary Arterial (Santa Ana General Plan Circulation Element Exhibit 1 – Master Plan of Streets and Highways)[39]. The Bikeway Master Plan (Santa Ana General Plan Circulation Element Exhibit 2 – Bikeway Master Plan) does not identify any existing or proposed Class II Bike Lanes on either Euclid Avenue or Hazard Street. Therefore, the Proposed Project would not conflict with a program, plan, or ordinance addressing bicycle facilities serving the Project Site.

Offsite improvements include removal and reconstruction of sidewalks along the W. Hazard frontage to City standards and to include tree wells, and to reconstruct damaged sidewalk panels along the N. Euclid frontage. Implementation of the Proposed Project would improve pedestrian facilities along the frontages of the Project Site. Therefore, the Proposed Project would not conflict with a program, plan, or ordinance addressing pedestrian facilities serving the Project Site.

[38] https://www.octa.net/ebusbook/CompleteBusBook.pdf
Accessed October 2, 2019
[39] https://www.santa-ana.org/sites/default/files/Documents/Circulation.pdf

Summary

The Proposed Project would generate 1,935 daily trips, with 62 trips (31 inbound, 31 outbound) produced in the AM peak hour and 62 trips (31 inbound, 31 outbound) produced in the PM peak hour on a "typical" weekday. Additionally, twenty-three (23) cumulative projects in the vicinity are expected to generate 8,303 daily trips, with 633 trips (266 inbound, 367 outbound) anticipated during the AM peak hour and 648 trips (355 inbound, 293 outbound) produced during the PM peak hour. The Proposed Project would result in significant impacts to the intersection of N. Euclid Street and W. Hazard Avenue, when compared to the City's General Plan Circulation Element. The Proposed Project would result in significant impacts to the same intersection under Year 2020 Cumulative plus Project traffic conditions.

In addition, the Proposed Project's two (2) proposed driveways would operate at acceptable LOS D or better during the AM and PM peak hours under Year 2020 Cumulative plus Project traffic conditions and project access would be adequate. Motorists entering and exiting the Project Site would be able to do so comfortably, safely, and without undue congestion. Adequate storage is provided to satisfy the Year 2020 plus Project 95th percentile queues for the four (4) left-turn lanes at the intersection of Euclid Street at Hazard Avenue (Appendix I).

There are no existing or proposed bicycle facilities adjacent to the Project Site, and implementation of the Proposed Project would improve the pedestrian facilities adjacent to the Project Site. Therefore, with implementation of **MM TRANS-1,** potential impacts associated with conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities would be less than significant.

Mitigation Measures:

MM TRANS-1: Prior to the issuance of a building permit, the Property Owner/Developer shall pay to the City its fair share of 35% of the cost to restripe Hazard Avenue to provide a second eastbound through lane and modify the existing traffic signal.

Significance Determination After Mitigation: Less Than Significant Impact.

b) Would the project conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?

Significance Determination: Less Than Significant Impact.

CEQA Guidelines Section 15064.3(b) states vehicle miles traveled (VMT) exceeding an applicable threshold of significance may indicate a significant impact. Generally, projects within one-half mile of either an existing major transit stop, or a stop along an existing high-quality transit corridor should be presumed to cause a less than significant transportation impact. Projects that decrease vehicle miles traveled in the project area compared to existing conditions should be presumed to have a less than significant transportation impact.

Pursuant to Public Resource Code 21064.3, an existing major transit stop is defined as a site containing an existing rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods. The Orange County Transportation Authority (OCTA) operates two bus lines which run in intervals of 15 minutes or less: Route 37 and Route 560[40], located within one-half mile of the Project Site. The nearest Route 37 bus stop is located across W. Hazard Avenue, approximately 200-feet to the north, and the nearest Route 560 stop is located approximately .49 miles to the north of the Project Site on Westminster Avenue. Therefore, potential impacts associated with the conflict of CEQA Guidelines Section 15064.3(b) would be less than significant and no mitigation would be required.

Mitigation Measures: No Mitigation Required.

Significance Determination After Mitigation: Less Than Significant Impact.

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

Significance Determination: Less Than Significant Impact.

The Proposed Project's two (2) proposed driveways would operate at acceptable LOS D or better during the AM and PM peak hours under Year 2020 Cumulative plus Project traffic conditions so project access would be adequate. Motorists entering and exiting the Project Site would be able to do so comfortably, safely, and without undue congestion. Adequate storage is provided to satisfy the Year 2020 plus Project 95th percentile queues for the four (4) left-turn lanes at the intersection of Euclid Street at Hazard Avenue. The on-site circulation would not incorporate any hazards. Circulation on-site would adequately serve large vehicles without resulting in dangerous maneuvering due to geometric design features (Figures 17 and 18). Therefore, potential impacts associated with an increase hazard due to geometric design features or incompatible uses would be less than significant and no mitigation would be required.

Mitigation Measures: No Mitigation Required.

Significance Determination After Mitigation: Less Than Significant Impact.

[40] https://www.octa.net/ebusbook/CompleteBusBook.pdf
Accessed October 2, 2019

d) Would the project result in inadequate emergency access?

Significance Determination: Less Than Significant Impact.

The Proposed Project would provide adequate emergency access during construction and operation and would be subject to reviews by both the Building Division[41] and Orange County Fire Authority (OCFA) to ensure compliance with building and fire codes. The Applicant would not be permitted to impact the public right-of-way without undergoing proper review through the Public Works Department. A Street Work Permit is required for all work located within City streets and is required to be performed by a licensed contractor. The Proposed Project would comply with City turning template requirements, ensuring adequate access on-site for large vehicles, such as a fire truck (Figures 17 and 18). Vehicular access to the Project Site would be provided via the two proposed driveways, one located on W. Hazard Avenue and one on N. Euclid Street. Therefore, potential impacts associated with inadequate emergency access would be less than significant and no mitigation would be required.

Mitigation Measures: No Mitigation Required.

Significance Determination After Mitigation: Less Than Significant Impact.

[41] https://www.santa-ana.org/sites/default/files/Documents/BLD-01_2014-01BuildingPermitInfo.pdf
Accessed October 2, 2019

5.18 TRIBAL CULTURAL RESOURCES

Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American Tribe, and that is:		**Potentially Significant Impact**	**Less than Significant with Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
(a)	Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k).	☐	☐	☒	☐
(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 Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American Tribe.	☐	☒	☐	☐

Effective July 1, 2015, Assembly Bill 52 (AB52) requires meaningful consultation with California Native American Tribes on potential impacts associated with tribal cultural resources, as defined in §21074. A tribe must submit a written request to the relevant lead agency if it wishes to be notified of projects within its traditionally and culturally affiliated area. The lead agency must provide written, formal notification to the tribes that have requested it within 14 days of determining that a project application is complete or deciding to undertake a project. The tribe must respond to the lead agency within 30 days of receipt of the notification if it wishes to engage in consultation on the project, and the lead agency must begin the consultation process within 30 days of receiving the request for consultation. Consultation concludes when either 1) the parties agree to mitigation measures to avoid a significant effect, if one exists, on a tribal cultural resource, or 2) a party, acting in good faith and after reasonable effort, concludes that agreement cannot be reached. AB 52 also addresses confidentiality during tribal consultation per Public Resources Code §21082.3(c). The City of Santa Ana has received a notification requests from three Native American tribes, who were notified of the Proposed Project in accordance with AB52.

Impact Analysis

a) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American Tribe, and that is listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k)?

Significance Determination: Less Than Significant Impact.

The Project Site is a vacant in a previously disturbed and developed area, with no historical structures located on the Project Site. The records search resulted in no identification of any cultural resources within the Project Site (Appendix B). Therefore, potential impacts to the significance of a historical resource would be less than significant and no mitigation would be required.

Mitigation Measures: No Mitigation Required.

Significance Determination After Mitigation: Less Than Significant Impact.

b) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American Tribe, and that is a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1.? In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American Tribe

Significance Determination: Less Than Significant With Mitigation Incorporated.

Assembly Bill 52 (AB 52), signed into law in 2014, amended CEQA and established new requirements for tribal notification and consultation. AB 52 applies to all projects for which a notice of preparation or notice of intent to adopt a negative declaration/mitigated negative declaration is issued after July 1, 2015. AB 52 also broadly defines a new resource category of tribal cultural resources and established a more robust process for meaningful consultation that includes:

- Prescribed notification and response timelines;
- Consultation on alternatives, resource identification, significance determinations, impact evaluation, and mitigation measures; and
- Documentation of all consultation efforts to support CEQA findings.

A tribe must submit a written request to the relevant lead agency if it wishes to be notified of projects within its traditionally and culturally affiliated area. The lead agency must provide written, formal notification to the tribes that have requested it within 14 days of determining that a project application

is complete or deciding to undertake a project. The tribe must respond to the lead agency within 30 days of receipt of the notification if it wishes to engage in consultation on the project, and the lead agency must begin the consultation process within 30 days of receiving the request for consultation. Consultation concludes when either 1) the parties agree to mitigation measures to avoid a significant effect, if one exists, on a tribal cultural resource, or 2) a party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached. AB 52 also addresses confidentiality during tribal consultation per Public Resources Code §21082.3(c).

On October 28, 2019, the City provided written notification of the Project in accordance with AB 52 to all the Native American tribes that requested to receive such notification from the City. Additionally, the City provided written notification of the Proposed Project to all Native American tribes that were listed on the NAHC list provided as a part of Appendix B. Of the tribes notified, the Gabrieleno Band of Mission Indians – Kizh Nation requested formal government-to-government consultation under AB 52. The City is scheduled to meet with the Gabrieleno Band of Mission Indians – Kizh Nation on January 16, 2020. The City sent recommended mitigation measures to the Gabrieleno Band of Mission Indians on December 23, 2019. With implementation of **MM TCR-1** potential impacts associated with Tribal Cultural Resources would be less than significant.

Mitigation Measures:

MM TCR-1: Prior to the issuance of a grading permit, the Property Owner/Developer shall submit to the City a Native American tribal monitoring agreement with the Gabrieleno Band of Mission Indians – Kizh Nation for tribal cultural resource monitoring to take place during subsurface ground-disturbing construction activities. If tribal cultural resources are encountered during ground disturbing activities, work in the immediate area must halt. Depending on the nature of the find, if the discovery proves to be potentially significant under CEQA, as determined by the tribal representative(s), additional measures such as avoidance of the area of the find, documentation, testing, data recovery, reburial, archival review and/or transfer to the appropriate museum or educational institution, or other appropriate actions may be warranted. The tribal representative(s) shall complete a brief letter report of excavations and findings and submit the report to the City. After the find is appropriately mitigated, work in the area may resume.

Significance Determination After Mitigation: Less Than Significant Impact.

5.19 UTILITIES/SERVICE SYSTEMS

	Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
(a)	Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunication facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☒	☐
(b)	Have sufficient water supplies available to serve the project and reasonably forseeable future development during normal, dry and multiple dry years?	☐	☐	☒	☐
(c)	Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☒	☐
(d)	Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☒	☐
(e)	Comply with federal, state, and local management and reduction statutes and regulations related to solid wastes?	☐	☐	☒	☐

Impact Analysis

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

Significance Determination: Less Than Significant Impact.

Water

According to the City's Urban Water Management Plan (UWMP), the City relies on a combination of imported water, local groundwater, and recycled water to meet its water needs. The City works together with two primary agencies, Metropolitan Water District (Metropolitan) and Orange County Water District (OCWD) to ensure a safe and reliable water supply that will continue to serve the community in periods of drought and shortage. The sources of imported water supplies include water from the Colorado River and the SWP provided by Metropolitan. The City receives its water from two main sources, local well water from the Lower Santa Ana River Groundwater Basin, also known as the Orange County Groundwater Basin (OC Basin), which is managed by OCWD, and imported water from Metropolitan. The City is a member agency of Metropolitan.

The City's main source of water supply is groundwater from the OC Basin. Imported water and recycled water make up the rest of the City's water supply portfolio. Currently, the City relies on approximately 71 percent groundwater, 28 percent imported water, and 1 percent recycled water. The City's water supply portfolio is expected to change slightly to 70 percent groundwater, 29 percent imported water, and 0.7 percent recycled water by the year 2040. The Proposed Project is consistent with the existing General Plan Land Use designation of General Commercial (GC) and therefore the expected water usage of the use is consistent with the UWMP. The Project Site not located within an OCWD designated groundwater recharge facility, as denoted in Figure 3-2 of the UWMP.

The City of Santa Ana 2015 UWMP determined that the City is expected to fully meet demands for the next three years. In addition, the Project Site is located in an urbanized area that is currently served by the Santa Ana Municipal Utility Services and accounted for in the Water Supply Allocation Plan as described in Section 5.2.2 of the Santa Ana 2015 UWMP. The Proposed Project would not create the need for new water facilities or result in insufficient water supply. Therefore, potential impacts associated with relocation or construction of new or expanded water supply facilities would be less than significant and no mitigation would be required.

Wastewater Treatment

Wastewater from the Proposed Project would mainly consist of effluent typical of commercial uses. None of the proposed uses would generate atypical wastewater such as industrial or agricultural effluent. All wastewater generated by the Proposed Project is expected to be domestic sewage. The convenience store would contain small quantities of household hazardous materials such as cleaning solvents, but these quantities would not be enough to exceed treatment requirements. Additionally, the Proposed Project would comply with all applicable regulations and standards, including the NPDES permit requirements and SARWQCB standards. The City of Santa Ana currently has sewage facilities available to serve the Proposed Project. The incremental increase in wastewater generation would be carried off-site through connections with existing sewer system lines surrounding the Project Site. Therefore, potential impacts associated with relocation or construction of new or expanded wastewater treatment facilities would be less than significant and no mitigation would be required.

Stormwater Drainage

According to the PWQMP (Appendix D), the Project Site currently contains a total of 27,948 square feet of pervious surface area and 0 square feet of impervious surface area. The Proposed Project would result in the development of 6,087 square feet of pervious surface area and 21,861 square feet of impervious surface area. The Proposed Project will keep drainage patterns in the same general direction as in the existing condition. Storm water will sheet flow in the north westerly direction until it is collected in a proposed concrete 'v'- gutter or curb and gutter. Water will be directed to the northwest corner where it will be deposited into a Filterra unit, which will filter the water before dispatching it to the public storm drain system. No offsite storm water is anticipated to enter the Project Site. Therefore, potential impacts associated with relocation or construction of new or expanded stormwater drainage facilities would be less than significant and no mitigation would be required.

Electric Power, Natural Gas, or Telecommunication Facilities

The Project Site is an infill lot in an existing urban environment. SCE currently provides the project area with electricity and would not require new or expanded facilities to service the Project Site. SoCalGas has currently provides natural gas to the project area and will not require new or expanded facilities to service the Project Site. The Proposed Project would not need new telecommunications facilities because it is in an urban area that already contains sufficient telecommunications facilities. The installation of the UST is not anticipated to impede any existing facilities. Therefore, potential impacts associated with relocation or construction of new or expanded electric power, natural gas, or telecommunications facilities would be less than significant and no mitigation would be required.

Mitigation Measures: No Mitigation Required.

Significance Determination After Mitigation: Less Than Significant Impact

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

Significance Determination: Less Than Significant Impact.

The Proposed Project would require water for the daily needs of customers as well as for landscaping, maintenance, and the operation of the facility. The City of Santa Ana 2015 UWMP determined that water supplies are projected to meet full-service demands; Metropolitan's 2015 UWMP found that Metropolitan is able to meet full-service demands of its member agencies starting 2020 through 2040 during normal years, single dry year, and multiple dry years. In addition, the Project Site is in an urbanized area currently served by the Santa Ana Municipal Utility Services Water and accounted for in the Water Supply Allocation Plan as described in Section 5.2.2 of the Santa Ana 2015 UWMP. Therefore, potential impacts associated with sufficient water supply availability would be less than significant and no mitigation would be required.

Mitigation Measures: No Mitigation Required.

Significance Determination After Mitigation: Less Than Significant Impact

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

Significance Determination: Less Than Significant Impact

The City sends all collected wastewater to the Orange County Sanitation District (OCSD) for treatment and disposal. The City operates and maintains the local sewer system consisting of over 390 miles of pipeline, 7,630 manholes, and two lift stations that connect to OCSD's trunk system to convey wastewater to OCSD's treatment plants. OCSD is responsible for the collection, treatment, and disposal of domestic, commercial, and industrial wastewater generated in central and northwestern Orange County. OCSD operates two wastewater treatment facilities, which include Reclamation Plant No. 1 in

Fountain Valley and Treatment Plant No. 2 in Huntington Beach. Plant No. 1 has a maximum capacity of 204 mgd and treats an average of 86 mgd. Plant No. 2 receives wastewater from five major sewers as well as from Plant No. 1, has an average flow rate of 124 mgd, and a maximum treatment capacity of 168 mgd. OCSD wastewater facilities have a combined primary treatment capacity of approximately 372 mgd. The average daily influent flow was 184 mgd in Fiscal Year 2015-16, which is 56 percent of the rated capacity.[42] OCSD's facilities had a combined surplus primary treatment capacity of approximately 165 MGD in 2009/2010. OCSD has enough capacity to treat the wastewater flows generated by the Proposed Project. OCSD is required to comply with the NPDES permits issued for Reclamation Plant No. 1 and Treatment Plant No. 2. This would ensure that the Proposed Project would not exceed the treatment requirements of the Santa Ana RWQCB. Therefore, potential impacts associated with wastewater treatment would be less than significant and no mitigation would be required.

Mitigation Measures: No Mitigation Required.

Significance Determination After Mitigation: Less Than Significant Impact

d) Would the project generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

Significance Determination: Less Than Significant Impact.

The City of Santa Ana contracts with Waste Management to provide solid waste collection services. Solid waste is transported by truck to the Sunset Environmental Service Transfer Station in Irvine and the CVT Transfer Station in Anaheim, with final transfer to the Frank R. Bowerman Landfill in Irvine. The Frank R. Bowerman Landfill has a total remaining capacity of 205 million cubic yards for solid waste and an allowance of 11,500 tons throughput per day. Using estimated solid waste generation rates provided by the California Department of Resources Recycling and Recovery (CalRecycle)[43], the Proposed Project would generate approximately 15 pounds of solid waste daily at full buildout. The Proposed Project would not result in a significant increase in solid waste generated on-site, as there will only be an incremental increase in solid waste that would be transported off-site. Waste Management will service the site, pick-up the bin at the on-site trash enclosures. Therefore, potential impacts associated with solid waste would be less than significant and no mitigation would be required.

Mitigation Measures: No Mitigation Required.

Significance Determination After Mitigation: Less Than Significant Impact.

[42] 2009-2010 Annual Report: Operations and Maintenance; Orange County Sanitation District; see: http://www.ocsd.com/Home/ShowDocument?id=10348, p. 1.12

[43] https://www2.calrecycle.ca.gov/WasteCharacterization/General/Rates#Commercial

e) Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid wastes?

Significance Determination: Less Than Significant Impact

In 1989, the Legislature adopted the California Integrated Waste Management Act of 1989 (Assembly Bill [AB] 939), in order to "reduce, recycle, and re-use solid waste generated in the state to the maximum extent feasible." AB 939 established a waste management hierarchy: Source Reduction, Recycling, Composting, Transformation, and Disposal. The law also required that each county prepare a new Integrated Waste Management Plan and each city prepare an SRRE by July 1, 1991. The SRRE is required to identify how each jurisdiction will meet the mandatory State waste diversion goal of 50 percent by the year 2000. The Act mandated that California's 450 jurisdictions (cities, counties, and regional waste management compacts) implement waste management programs aimed at a 25 percent diversion rate by 1995 and a 50 percent diversion rate by 2000. If the 50 percent goal was not met by the end of 2000, the jurisdiction was required to submit a petition for a goal extension to CalRecycle.

Senate Bill (SB) 2202 made a number of changes to the municipal solid waste diversion requirements under AB 939. These changes included a revision to the statutory requirement for 50 percent diversion of solid waste to clarify that local governments shall continue to divert 50 percent of all solid waste on and after January 1, 2000.

SB 1016 introduced a per capita disposal measurement system that measures the 50 percent diversion requirement using a disposal measurement equivalent. The Bill repealed the State Water Board's 2-year process, requiring instead that the State Water Board make a finding whether each jurisdiction was in compliance with the Act's diversion requirements for calendar year 2006 and to determine compliance for the 2007 calendar year and beyond, based on the jurisdiction's change in its per capita disposal rate. The State Water Board is required to review a jurisdiction's compliance with those diversion requirements in accordance with a specified schedule, which is conditioned upon the State Water Board finding that the jurisdiction complies with those requirements or has implemented its source reduction and recycling element and household hazardous waste element. The Bill requires the State Water Board to issue an order of compliance if the State Water Board finds that the jurisdiction has failed to make a good faith effort to implement its source reduction and recycling element or its household hazardous waste element, pursuant to a specified procedure.

The per capita disposal rate is a jurisdiction-specific index, which is used as one of several "factors" in determining a jurisdiction's compliance with the intent of AB 939 and allows CalRecycle and jurisdictions to set their primary focus on successful implementation of diversion programs. Meeting the disposal rate targets is not necessarily an indication of compliance. CalRecycle reports that Santa Ana's Disposal Rate Targets for Reporting Year 2011 are 4.8 pounds per day per resident and 11.3 pounds per day per employee.

The Project Site would be served by Waste Management. Participation in the City's recycling programs during project construction and operation, including CalRecycle's requirements, would ensure that the Proposed Project would not conflict with federal, State, and local statutes and regulations related to solid waste. The Proposed Project would meet or exceed standards set forth in California Green Building Standards Code (CALGreen) as well as Title 24. Therefore, with compliance with federal, state and local statutes and regulations, potential impacts associated with solid waste would be less than significant and no mitigation would be required.

Mitigation Measures: No Mitigation Required.

Significance Determination After Mitigation: Less Than Significant Impact.

5.20 WILDFIRE

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
(a)	Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
(b)	Due to slope prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☐	☒
(c)	Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☒	☐
(d)	Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☒	☐

Impact Analysis

a) Would the project substantially impair an adopted emergency response plan or emergency evacuation plan?

Significance Determination: No Impact.

The Proposed Project would not impair an emergency response or evacuation plan, as the Proposed Project involves the construction of a service station consisting of a convenience store, fuel canopy, and ancillary improvements, including access to the site which comply with the City's Engineering Standards (e.g. Standard Plan No. 1112, Case No. 1) which enable emergency vehicle access. The Project Site is not located in a High Fire Hazard Severity Zone[44]. Therefore, no impact to an adopted emergency response plan or emergency evacuation plan would occur and no mitigation would be required.

Mitigation Measures: No Mitigation Required.

Significance Determination After Mitigation: No Impact.

[44] https://frap.fire.ca.gov/media/6218/fhszs_map30.pdf Accessed October 11, 2019

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?

Significance Determination: No Impact.

The City of Santa Ana is largely developed and does not have any major areas containing flammable brush, grass or trees[45]. The Project Site is not located in a High Fire Hazard Severity Zone. The Project Site is generally flat, with no severe slopes and is not situated near severe slopes. Surrounding the Project Site is built out development, including residential development to the north, south and west, and Buddhist Temple to the east. Therefore, no impacts due to slope prevailing winds, and other factors exacerbating wildfire risks, and thereby exposing project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire would occur and no mitigation would be required.

Mitigation Measures: No Mitigation Required.

Significance Determination After Mitigation: No Impact

c) Would the project require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

Significance Determination: Less Than Significant Impact.

The Proposed Project would involve the conversion of existing overhead utility line and power pole along the property frontage on W. Hazard Avenue to underground facilities (Figure 3). At the time of construction, appropriate measures for removal of the existing power pole would be taken to reduce the potential for wildfire risk (e.g. sparks). The existing power pole proposed for removal and undergrounding of utility facilities is located within the public right-of-way and utility easement and would be subject to review by both the Public Works Department, including the approval of improvement plans, and the utility provider. Therefore, potential impacts associated with the installation or maintenance of associated infrastructure that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment would be less than significant and no mitigation would be required.

Mitigation Measures: No Mitigation Required.

Significance Determination After Mitigation: Less Than Significant Impact.

[45] https://www.santa-ana.org/sites/default/files/pb/general-plan/documents/Land%20Use_0.pdf (pg. A-52) Accessed October 11, 2019

d) Would the project expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

Significance Determination: Less Than Significant Impact.

The City of Santa Ana is largely developed and does not have any major areas containing flammable brush, grass or trees[46]. The Project Site is not located in a High Fire Hazard Severity Zone[47]. There is built environment surrounding the Project Site, with residential development to the north, south and west, and Buddhist Temple to the east. The Project Site is relatively flat, with no significant slopes on-site. Therefore, no impacts exposing people or structures directly or indirectly to significant risks involving wildland fires would occur and no mitigation is required.

Mitigation Measures: No Mitigation Required.

Significance Determination After Mitigation: Less Than Significant Impact.

[46] https://www.santa-ana.org/sites/default/files/pb/general-plan/documents/Land%20Use_0.pdf (pg. A-52) Accessed October 11, 2019

[47] https://frap.fire.ca.gov/media/6218/fhszs_map30.pdf Accessed October 11, 2019

5.21 MANDATORY FINDINGS OF SIGNIFICANCE

		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
(a)	Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
(b)	Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects?)	☐	☒	☐	☐
(c)	Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☒	☐	☐

Impact Analysis

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

Significance Determination: Less Than Significant Impact with Mitigation Incorporated

The Project Site is an approximate 0.64-acre parcel in an urbanized area of Santa Ana in Orange County that is surrounded by residential development. The Proposed Project would involve a zone change and the construction of a service station with a 3,045 SF convenience store, 1,800 SF fuel canopy with four (4) fuel pumps that would service up to eight (8) vehicles at one time. The Proposed Project would also include ancillary improvements associated with the commercial use, such as landscaping, trash enclosure, signage (including monument sign) and site lighting. The Project Site was previously disturbed and developed prior to its existing state of vacancy. The Project Site is a corner lot, with N. Euclid Street and W. Hazard Avenue directly adjacent to the west and north. The Project Site is not adjacent to any open space or other vacant parcels. There is no existing body of water on the Project Site that would support any native resident or migratory fish or wildlife species. The Project Site has no capacity to support any species of plants or wildlife that would be 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.

Development activities have the potential to encounter undiscovered paleontological resources and the project would be subject to compliance with **MM GEO-1**, which provides direction in the event paleontological resources are unearthed during project subsurface activities, and **MM TCR-1,** which provides for tribal monitoring for potential undiscovered tribal cultural resources. Therefore, with implementation of **MM GEO-1** and **MM TCR-1**, impacts associated with important examples of the major periods of California history or prehistory would be less than significant.

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

Significance Determination: Less Than Significant Impact with Mitigation Incorporated

Cumulative traffic associated with the Proposed Project would significantly impact the intersection of Euclid Street at Hazard Avenue, when compared to the LOS standards and significant impact criteria specified in Appendix I. **MM TRANS-1** would require that the Property Owner/Developer pay its fair share of 35% of the cost to restripe Hazard Avenue to provide a second eastbound through lane and modify the existing traffic signal. Implementation of **MM TRANS-1** at the impacted key study intersection would reduce potential impacts of project traffic to less than significant.

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

Significance Determination: Less Than Significant Impact with Mitigation Incorporated

Construction activities for the Proposed Project would include driving 30 piles in order to anchor the underground storage tanks to prevent uplift of the tanks in the event of a rise in groundwater, building construction and application of architectural coatings to the proposed convenience market and gas station, and paving of the proposed parking lot and driveways. Vibration impacts from construction activities associated with the Proposed Project would typically be created from the operation of heavy off-road equipment. The nearest sensitive receptors to the Project Site are the multi-family homes located adjacent to the south side of the Project Site and the Buddhist temple located adjacent to the east side of the Project Site.

MM NOI-1 would restrict the use of impact pile drivers during construction of the Proposed Project and require the installation of piles to be installed with a sonic-style pile driver or other type of pile driver that produces similar vibration levels as a sonic pile driver. A sonic style pile driver typically creates a vibration level of 0.0170 inch per second PPV at 25 feet. With implementation of **MM NOI-1,** potential vibration impacts associated with construction would be less than significant.

Construction of the Proposed Project could create a significant hazard to the public or the environment through the routine transport, use or disposal of hazardous materials due to hydrocarbon concentrations that were detected in the soil and groundwater samples that appear to be residual from the closed LUST case on the site; however, concentrations in certain soil samples (B3-15 and B3-W) are

above action levels for TPH GRO and benzene. **MM HAZ-1** would require that prior to the issuance of a grading permit, the Property Owner/Developer shall submit to the City Public Works and Planning and Building Departments a soil and groundwater management plan that includes additional soil sampling by qualified firm to determine the presence or absence of hydrocarbon impacted soil and/or groundwater during grading and construction of the Proposed Project. Qualified personnel shall be retained to be present on-site during excavation activities as part of the plan. The plan shall identify proper procedures to dispose of impacted soil and groundwater in accordance with all applicable federal, state, and local regulations. With implementation of **MM HAZ-1**, potential impacts associated with the routine transport, use or disposal of hazardous materials would be less than significant.

Significance Determination After Mitigation: Less Than Significant Impact

SECTION 6.0 REFERENCES

The following documents were used as information sources during preparation of this document.

Appendix A – *Air Quality, Energy, and Greenhouse Gas Emissions Impact Analysis, 813 N Euclid Street Gas Station Project,* Vista Environmental, October 4, 2019

Appendix B – *Cultural and Paleontological Resources Assessment for the Euclid Fueling Station Project,* Cogstone, October 2019

Appendix C – *Report of Geotechnical Investigation Proposed Building and Improvements*, Garcrest Engineering and Construction, Inc., April 2, 2018

Appendix D – *Preliminary Water Quality Management Plan,* NA & Associates, Inc., August 28, 2018

Appendix E – *Hydrology and Hydraulics Report,* NA & Associates, Inc., October 2019

Appendix F – *Phase I Environmental Site Assessment Proposed 7-Eleven Store #1042163,* Stantec Consulting Services, Inc., October 17, 2019

Appendix G – *Phase II Environmental Site Assessment 7-Eleven Store No. 38384 (1042163),* Stantec Consulting Services, Inc., October 18, 2019

Appendix H – *Noise Impact Analysis, 813 N Euclid Street Gas Station Project,* Vista Environmental, October 8, 2019

Appendix I – *Focused Traffic Impact Assessment for the Proposed 813 N. Euclid Street Gas Station Project,* Linscott, Law & Greenspan Engineers, October 18, 2019

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SECTION 8.0 MITIGATION MONITORING AND REPORTING PROGRAM

Impact Category	Mitigation Measures	Implementation Timing	Responsible Monitoring Party	Monitoring/Reporting Method
Geology and Soils	**MM GEO-1:** Prior to the issuance of a grading permit, the Property Owner/Developer shall include the following note on the grading plans: In the event that paleontological resources are encountered during grading and construction, all construction activities shall be temporarily halted or redirected to permit the sampling, identification, and evaluation of paleontological materials as determined by the City, who shall establish with a certified paleontologist, the appropriate procedures for exploration and/or salvage of the resources.	Prior to issuance of Grading Permit	Planning and Building Agency Public Works Department	Precise Grading Plan Review and Issuance of Grading Permits

Impact Category	Mitigation Measures	Implementation Timing	Responsible Monitoring Party	Monitoring/Reporting Method
Hazards and Hazardous Materials	**MM HAZ-1:** Prior to the issuance of a grading permit, the Property Owner/Developer shall submit to the City Public Works and Planning and Building Departments a soil and groundwater management plan that includes additional soil sampling by qualified firm to determine the presence or absence of hydrocarbon impacted soil and/or groundwater during grading and construction of the Proposed Project. Qualified personnel shall be retained to be present on-site during excavation activities as part of the plan. The plan shall identify proper procedures to dispose of impacted soil and groundwater in accordance with all applicable federal, state, and local regulations.	Prior to issuance of Grading Permit	Planning and Building Agency Public Works Department	Soil and Groundwater Management Plan
Noise	**MM NOI-1:** Prior to the issuance of a grading permit, the Property Owner/Developer shall include a note on the plans that impact pile drivers shall not be used during construction of the Proposed Project. Piles shall be installed with a sonic-style pile driver or other type of pile driver that produces similar vibration levels as a sonic pile driver.	Prior to issuance of a grading permit	Planning and Building Agency Public Works Department	Precise Grading Plan Review and Issuance of Grading Permits

Impact Category	Mitigation Measures	Implementation Timing	Responsible Monitoring Party	Monitoring/Reporting Method
Transportation	**MM TRANS-1:** Prior to the issuance of a building permit, the Property Owner/Developer shall pay to the City its fair share of 35% of the cost to restripe Hazard Avenue to provide a second eastbound through lane and modify the existing traffic signal.	Prior to issuance of a building permit	Planning and Building Agency Public Works Department	Building Plans

Impact Category	Mitigation Measures	Implementation Timing	Responsible Monitoring Party	Monitoring/Reporting Method
Tribal Cultural Resources	**MM TCR 1:** Prior to the issuance of a grading permit, the Property Owner/Developer shall submit to the City a Native American tribal monitoring agreement with the Gabrieleno Band of Mission Indians – Kizh Nation for tribal cultural resource monitoring to take place during subsurface ground-disturbing construction activities. If tribal cultural resources are encountered during ground disturbing activities, work in the immediate area must halt. Depending on the nature of the find, if the discovery proves to be potentially significant under CEQA, as determined by the tribal representative(s), additional measures such as avoidance of the area of the find, documentation, testing, data recovery, reburial, archival review and/or transfer to the appropriate museum or educational institution, or other appropriate actions may be warranted. The tribal representative(s) shall complete a brief letter report of excavations and findings and submit the report to the City. After the find is appropriately mitigated, work in the area may resume.	Prior to issuance of a grading permit	Planning and Building Agency Public Works Department	Tribal Monitoring Agreement

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SECTION 9.0 APPENDICES

Appendix A – *Air Quality, Energy, and Greenhouse Gas Emissions Impact Analysis, 813 N Euclid Street Gas Station Project,* Vista Environmental, October 4, 2019

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