# *Air Quality Analysis and CEQA Assessment*

*ARCO Service Station No. 7037*
*2375 Quimby Road*
*San Jose, California 95122*

*Antea Group Project No. BPSJCEQA18*
*May 25, 2018*

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## 1.0 INTRODUCTION

Antea Group has prepared this *Air Quality Analysis and CEQA Assessment* for the ARCO Service Station No. 7037 (site), located at 2375 Quimby Road in San Jose, California.

The site consists of a station building, with a canopy over four multi-product fuel dispensers. The intended project proposes to demolish the existing building and remove the existing underground storage tanks, and construct a new 3,054-square foot AM/PM convenience store, with a 149-square foot service yard, a 200-square foot trash enclosure, and a 4,872-square foot canopy covering sixteen multi-product fuel dispensers. New underground storage tanks will be installed, as well as a 971-square foot automatic self-service car wash. The new underground storage tanks will include one 25,000-gallon tank for regular unleaded gasoline and one 12,000-gallon double tank with 6,000 gallons premium unleaded gasoline on one side and 6,000-gallon for diesel storage on the other side. Mitigation controls will include a Stage I and Stage II Vapor Recovery System.

This analysis will provide assessment for applicable rules and regulations under the California Environmental Quality Act (CEQA), and analyze for potential emissions impacting air quality from the intended construction and operation of the new fuel service station. Air quality within San Jose and the San Francisco Bay Area is regulated under the Bay Area Air Quality Management District (BAAQMD), with regulations and oversight from the California Air Resources Board (CARB) and the U.S. Environmental Protection Agency (EPA).

## 2.0 REGULATORY ENVIRONMENT

### 2.1 Federal Air Quality Regulations

The United States Environmental Protection Agency (EPA) mandates air quality based on the Federal Clean Air Act (FCAA), established in 1963 and amended in 1970, 1977, and 1990. Through the FCAA:

- The EPA established primary and secondary national ambient air quality standards (NAAQS)
- States are required to prepare State Implementation Plans for air quality control, which include emissions inventories and rules and regulations

Under the FCAA, the EPA has authority to regulate emissions of greenhouse gases (GHG). In addition, facilities emitting 25,000 metric tons or more of carbon dioxide per year must report emissions data to the EPA.

Title III of the FCAA Amendments (FCAAA) required the EPA to put into effect national emissions standards for hazardous air pollutants (NESHAP), including carbon monoxide, nitrogen oxides, ozone, particulate matter, sulfur

oxides, and lead. The NESHAPs are regulated under Code of Federal Regulations (CFR) Title 40 Parts 61 and 63 (BAAQMD, 2017).

## 2.2 State Air Quality Regulations

State regulations for air quality in California are managed by the California Air Resources Board (CARB). The CARB is responsible for oversight of local air pollution control programs within California, and implementing plans to maintain National Ambient Air Quality Standards (NAAQS). The CARB implemented the California Clean Air Act (CCAA) in 1988, requiring all air districts to achieve and maintain the California Ambient Air Quality Standards (CAAQS).

The CARB with approval from the EPA has delegated authority for implementation and enforcement of New Source Performance Standards (NSPS) and NESHAPs in the San Francisco Bay Area to the Bay Area Air Quality Management District (BAAQMD).

California regulates toxic air contaminants (TAC) through the Tanner Air Toxics Act, which set forth a procedure for the CARB to designate substances as TACs. TACs must have control measures to keep emissions below designated thresholds, or utilize best available control technology to minimize emissions. TACs are also regulated through the Toxics Hot Spots Information and Assessment Act of 1987, requiring facilities that emit toxic substances above a specified level to prepare a toxic emissions inventory, prepare a risk assessment if emissions are significant, notify the public of significant risk levels, and prepare and implement risk reduction measures.

Under Assembly Bill 32, the California Global Warming Solutions Act, California requires the reduction of statewide greenhouse gas emissions to 1990 levels by 2020, allowing the CARB to implement caps on emissions and develop tracking, reporting, and enforcement methods. Senate Bill 97 signed in 2007 specified that climate change is a prominent environmental issue requiring analysis under the California Environmental Quality Act (CEQA), leading to the 2009 CEQA guidelines for mitigating greenhouse gas emissions. Greenhouse gas emissions are also regulated under Assembly Bill 1493, Senate Bills 1078, 107, 1368, 97, and 375, and Executive Orders S-14-08, S-3-05, S-13-08, and S-1-07 (BAAQMD, 2017).

## 2.3 Regional Air Quality Regulations

Regionally, the site sits within the BAAQMD. Under oversight from the CARB, BAAQMD is responsible for maintaining air quality within the SFBAAB. The clean air strategy of the BAAQMD includes preparation of plans for attainment of CAAQS, issuance of permits for stationary sources of air pollution, inspection of stationary sources of air pollution and response to citizen complaints, monitoring of air quality, and adoption and enforcement of rules and regulations concerning sources of air pollution, with respect to the FCAA and its amendments, and the CCAA.

The BAAQMD also enforces air quality under the CEQA, and BAAQMD guidelines for CEQA include criteria and thresholds for determining whether a project may have significant adverse air quality impact, specific procedures

and modeling protocols for quantifying and analyzing air quality impacts, methods available to mitigate air quality impacts, and information for use in air quality assessments and environmental documents that will be updated more frequently such as air quality data, regulatory setting, climate, and topography.

The BAAQMD, Metropolitan Transportation Commission, and Association of Bay Area Governments prepared the Bay Area 1991 Clean Air Plan addressing the CCAA, with updates developed approximately every three years. The BAAQMD prepared the 2010 Clean Air Plan to address nonattainment of the national 1-hour ozone standard in the SFBAAB, with the purpose to update the Bay Area Ozone Strategy in accordance with the requirements of the CCAA to implement all feasible measures to reduce ozone, consider impacts of ozone control measures on particulate matter (PM), air toxics, and greenhouse gases (GHGs), review progress in improving air quality, and establish emission control measures (adopted by 2012).

On April 19, 2017, the BAAQMD adopted the 2017 Clean Air Plan, titled "Spare the Air Cool the Climate: A Blueprint for Clean Air and Climate Protection in the Bay Area". It describes a strategy to reduce emissions and ambient concentrations of ozone, particulate matter, TACs, and GHGs. While PM is technically below state and national standards, the 2017 Clean Air Plan describes some Bay Area communities still impacted by localized concentrations, and cites health studies finding negative health impacts from exposures to PM even below current standards, thus compelling BAAQMD to further reduce PM emissions. The BAAQMD is also focused on drastic reductions of GHGs with the goal of reducing Bay Area GHG emissions 40 percent below 1990 levels by 2030, and 80 percent below 1990 levels by 2050.

Under BAAQMD Regulations 2-1 (General Permit Requirements), 2-2 (New Source Review), and 2-5 (New Source Review), all nonexempt sources that possess potential to emit TACs are required to obtain permits, and be constructed and operated in accordance with applicable regulations (BAAQMD, 2017).

## 2.4 Local Air Quality Regulations

The City of San Jose has listed the following policy goals regarding air pollutant emission reduction in the City of San Jose General Plan (Envision San Jose 2040, 2011):

> **Goals MS-10 – Air Pollutant Emission Reduction**
>
> Minimize air pollutant emissions from new and existing development.
>
> **Policies – Air Pollutant Emission Reduction**
>
> **MS-10.1** Assess projected air emissions from new development in conformance with the Bay Area Air Quality Management District (BAAQMD) CEQA Guidelines and relative to state and federal standards. Identify and implement feasible air emission reduction measures.
>
> **MS-10.2** Consider the cumulative air quality impacts from proposed developments for proposed land use designation changes and new development, consistent with the region's Clean Air Plan and State law.
>
> **MS-10.3** Promote the expansion and improvement of public transportation services and facilities, where appropriate, to both encourage energy conservation and reduce air pollution.

**MS-10.4** Encourage effective regulation of mobile and stationary sources of air pollution, both inside and outside of San José. In particular support Federal and State regulations to improve automobile emission controls.

**MS-10.5** In order to reduce vehicle miles traveled and traffic congestion, require new development within 2,000 feet of an existing or planned transit station to encourage the use of public transit and minimize the dependence on the automobile through the application of site design guidelines and transit incentives.

**MS-10.6** Encourage mixed land use development near transit lines and provide retail and other types of service oriented uses within walking distance to minimize automobile dependent development.

**MS-10.7** Encourage regional and statewide air pollutant emission reduction through energy conservation to improve air quality

**MS-10.8** Minimize vegetation removal required for fire prevention. Require alternatives to discing, such as mowing, to the extent feasible. Where vegetation removal is required for property maintenance purposes, encourage alternatives that limit the exposure of bare soil.

**MS-10.9** Foster educational programs about air pollution problems and solutions.

**Actions – Air Pollutant Emission Reduction**

**MS-10.10** Actively enforce the City's ozone-depleting compound ordinance and supporting policy to ban the use of chlorofluorocarbon compounds (CFCs) in packaging and in building construction and remodeling. The City may consider adopting other policies or ordinances to reinforce this effort to help reduce damage to the global atmospheric ozone layer.

**MS-10.11** Enforce the City's wood-burning appliance ordinance to limit air pollutant emissions from residential and commercial buildings.

**MS-10.12** Increase the City's alternative fuel vehicle fleet with the co-benefit of reducing local air emissions. Implement the City's Environmentally Preferable Procurement Policy (Council Policy 4-6) and Pollution Prevention Policy (Council Policy 4-5) in a manner that reduces air emissions from municipal operations. Support policies that reduce vehicle use by City employees.

**MS-10.13** As a part of City of San José Sustainable City efforts, educate the public about air polluting household consumer products and activities that generate air pollution. Increase public awareness about the alternative products and activities that reduce air pollutant emissions.

**MS-10.14** Review and evaluate the effectiveness of site design measures, transit incentives, and new transportation technologies and encourage those that most successfully reduce air pollutant emissions.

**Goal MS-11 – Toxic Air Contaminants**

Minimize exposure of people to air pollution and toxic air contaminants such as ozone, carbon monoxide, lead, and particulate matter.

**Policies – Toxic Air Contaminants**

**MS-11.1** Require completion of air quality modeling for sensitive land uses such as new residential developments that are located near sources of pollution such as freeways and industrial uses. Require new residential development projects and projects categorized as sensitive receptors to incorporate

effective mitigation into project designs or be located an adequate distance from sources of toxic air contaminants (TACs) to avoid significant risks to health and safety.

**MS-11.2** For projects that emit toxic air contaminants, require project proponents to prepare health risk assessments in accordance with BAAQMD-recommended procedures as part of environmental review and employ effective mitigation to reduce possible health risks to a less than significant level. Alternatively, require new projects (such as, but not limited to, industrial, manufacturing, and processing facilities) that are sources of TACs to be located an adequate distance from residential areas and other sensitive receptors.

**MS-11.3** Review projects generating significant heavy-duty truck traffic to designate truck routes that minimize exposure of sensitive receptors to TACs and particulate matter.

**MS-11.4** Encourage the installation of appropriate air filtration at existing schools, residences, and other sensitive receptor uses adversely affected by pollution sources.

**MS-11.5** Encourage the use of pollution absorbing trees and vegetation in buffer areas between substantial sources of TACs and sensitive land uses.

**Actions – Toxic Air Contaminants**

**MS-11.6** Develop and adopt a comprehensive Community Risk Reduction Plan that includes: baseline inventory of toxic air contaminants (TACs) and particulate matter smaller than 2.5 microns (PM2.5), emissions from all sources, emissions reduction targets, and enforceable emission reduction strategies and performance measures. The Community Risk Reduction Plan will include enforcement and monitoring tools to ensure regular review of progress toward the emission reduction targets, progress reporting to the public and responsible agencies, and periodic updates of the plan, as appropriate.

**MS-11.7** Consult with BAAQMD to identify stationary and mobile TAC sources and determine the need for and requirements of a health risk assessment for proposed developments.

**MS-11.8** For new projects that generate truck traffic, require signage which reminds drivers that the State truck idling law limits truck idling to five minutes.

**Goal MS-12 – Objectionable Odors**
Minimize and avoid exposure of residents to objectionable odors.

**Policies – Objectionable Odors**

**MS-12.1** For new, expanded, or modified facilities that are potential sources of objectionable odors (such as landfills, green waste and resource recovery facilities, wastewater treatment facilities, asphalt batch plants, and food processors), the City requires an analysis of possible odor impacts and the provision of odor minimization and control measures as mitigation.

**MS-12.2** Require new residential development projects and projects categorized as sensitive receptors to be located an adequate distance from facilities that are existing and potential sources of odor. An adequate separation distance will be determined based upon the type, size and operations of the facility.

**Goal MS-13 – Construction Air Emissions**
Minimize air pollutant emissions during demolition and construction activities.

Policies – Construction Air Emissions

**MS-13.1** Include dust, particulate matter, and construction equipment exhaust control measures as conditions of approval for subdivision maps, site development and planned development permits, grading permits, and demolition permits. At minimum, conditions shall conform to construction mitigation measures recommended in the current BAAQMD CEQA Guidelines for the relevant project size and type.

**MS-13.2** Construction and/or demolition projects that have the potential to disturb asbestos (from soil or building material) shall comply with all the requirements of the California Air Resources Board's air toxics control measures (ATCMs) for Construction, Grading, Quarrying, and Surface Mining Operations.

**MS-13.3** Require subdivision designs and site planning to minimize grading and use landform grading in hillside areas.

**Actions – Construction Air Emissions**

**MS-13.4** Adopt and periodically update dust, particulate, and exhaust control standard measures for demolition and grading activities to include on project plans as conditions of approval based upon construction mitigation measures in the BAAQMD CEQA Guidelines.

**MS-13.5** Prevent silt loading on roadways that generates particulate matter air pollution by prohibiting unpaved or unprotected access to public roadways from construction sites.

**MS-13.6** Revise the grading ordinance and condition grading permits to require that graded areas be stabilized from the completion of grading to commencement of construction.

# 3.0 AIR QUALITY

## 3.1 Setting

The site is located in eastern San Jose, California, in Santa Clara County, within the San Francisco Bay Area Air Basin (SFBAAB). It is located at the northwest corner of the intersection of Quimby Road and Capitol Expressway, in a mixed commercial and residential area.

The Bay Area has a Mediterranean climate, with generally warm, sunny summers and cool, wet winters. Temperatures typically range, in degrees Fahrenheit, from the high 50's to the low 80's during summer, and from the low 40's to the high 50's during winter. San Jose sits within the Santa Clara Valley, bordered by the San Francisco Bay to the north, and mountains to the south, east, and west.

Winds within the Santa Clara Valley roughly parallel the valley's northwest-southeast axis, with a north-northwesterly wind flowing through the valley during afternoons and early evenings, and a south-southeasterly drainage flow occurring during the late evenings and early mornings. During summers, the southern end of the valley may become a convergence zone where air from Monterey Bay south of the Valley flows northwards into the southern end of the valley and meets with the prevailing north-northwesterly winds. Wind speeds are greatest in spring and summer and weakest in fall and winter, though strong winds are not common.

Pollution from sources within the Santa Clara Valley come from the high concentration of industry and the large population (there are currently over one million people living in San Jose). The valley generates the highest mobile source emissions of any sub region in the SFBAAB. During higher temperatures encountered in the summer, the stable air and surrounding mountains combine to promote ozone formation in the valley. Local sources of pollution also combine with ozone precursors from the surrounding bay area carried by winds into the Santa Clara valley. The valley tends to channel pollutants to the southeast. Additionally, during the summer, ozone may be recirculated by southerly drainage flows in the late evenings and early mornings, and by prevailing northwesterlies in the afternoons, with a similar pattern occurring in winters as well. This recirculation of air in the valley increases the impact of air pollutants significantly (BAAQMD, 2017).

## 3.2 Criteria Air Pollutants

Five criteria pollutants most commonly measured and regulated include carbon monoxide, ground level ozone, nitrogen dioxide, sulfur dioxide, and suspended particulate matter ($PM_{2.5}$ and $PM_{10}$). As discussed in **Section 2.0**, the EPA sets National Ambient Air Quality Standards (NAAQS) under the Federal Clean Air Act; California also sets California Ambient Air Quality Standards (CAAQS). Areas not violating the standards are considered to have attained the standard. The SFBAAB is, as of 2017 data, a non-attainment area for ozone and particulate matter $PM_{2.5}$ (annual) and $PM_{10}$ (24-hour and annual) according to California standards, and for ozone and 24-hour $PM_{2.5}$ according to national standards, making these pollutants of greatest concern for this area.

### 3.2.1 Thresholds of Significance

The SFBAAB is currently designated as a nonattainment area for state and national ozone standards and national particulate matter ambient air quality standards. SFBAAB's nonattainment status is attributed to the region's development history. Past, present and future development projects contribute to the region's adverse air quality impacts on a cumulative basis. By its very nature, air pollution is largely a cumulative impact. No single project is sufficient in size to, by itself, result in nonattainment of ambient air quality standards. Instead, a project's individual emissions contribute to existing cumulatively significant adverse air quality impacts. If a project's contribution to the cumulative impact is considerable, then the project's impact on air quality would be considered significant.

The BAAQMD has developed thresholds of significance for the SFBAAB for criteria air pollutants and precursors. The thresholds are based on emissions levels for which a project's individual emissions would be cumulatively considerable; emissions from each source within the region contribute to the overall air quality, thus having potential to have a significant impact in the air quality and health for the entire region. If a project exceeds the designated thresholds, its emissions may result in significant adverse air quality for the region. Analysis for project emissions data is expected to be as rigorous as possible.

The BAAQMD has developed screening criteria to provide lead agencies and project applicants with a conservative indication of whether the proposed project could result in potentially significant air quality impacts.

The screening criteria are listed below in **Table 1**; data has been taken directly from the BAAQMD CEQA Guidelines from May 2017.

| Table 1. Operational-Related Criteria Air Pollutant and Precursor Screening Level Sizes | | | |
|---|---|---|---|
| **Land Use Type** | **Operational Criteria Pollutant Screening Size** | **Operational GHG Screening Size** | **Construction-Related Screening Size** |
| Single-family | 325 du (NOX) | 56 du | 114 du (ROG) |
| Apartment, low-rise | 451 du (ROG) | 78 du | 240 du (ROG) |
| Apartment, mid-rise | 494 du (ROG) | 87 du | 240 du (ROG) |
| Apartment, high-rise | 510 du (ROG) | 91 du | 249 du (ROG) |
| Condo/townhouse, general | 451 du (ROG) | 78 du | 240 du (ROG) |
| Condo/townhouse, high-rise | 511 du (ROG) | 92 du | 252 du (ROG) |
| Mobile home park | 450 du (ROG) | 82 du | 114 du (ROG) |
| Retirement community | 487 du (ROG) | 94 du | 114 du (ROG) |
| Congregate care facility | 657 du (ROG) | 143 du | 240 du (ROG) |
| Day-care center | 53 ksf (NOX) | 11 ksf | 277 ksf (ROG) |
| Elementary school | 271 ksf (NOX) | 44 ksf | 277 ksf (ROG) |
| Elementary school | 2747 students (ROG) | - | 3904 students (ROG) |
| Junior high school | 285 ksf (NOX) | - | 277 ksf (ROG) |
| Junior high school | 2460 students (NOX) | 46 ksf | 3261 students (ROG) |
| High school | 311 ksf (NOX) | 49 ksf | 277 ksf (ROG) |
| High school | 2390 students (NOX) | - | 3012 students (ROG) |
| Junior college (2 years) | 152 ksf (NOX) | 28 ksf | 277 ksf (ROG) |
| Junior college (2 years) | 2865 students (ROG) | - | 3012 students (ROG) |
| University/college (4 years) | 1760 students (NOX) | 320 students | 3012 students (ROG) |
| Library | 78 ksf (NOX) | 15 ksf | 277 ksf (ROG) |
| Place of worship | 439 ksf (NOX) | 61 ksf | 277 ksf (ROG) |
| City park | 2613 acres (ROG) | 600 acres | 67 acres (PM10) |
| Racquet club | 291 ksf (NOX) | 46 ksf | 277 ksf (ROG) |
| Racquetball/health | 128 ksf (NOX) | 24 ksf | 277 ksf (ROG) |
| Quality restaurant | 47 ksf (NOX) | 9 ksf | 277 ksf (ROG) |
| High turnover restaurant | 33 ksf (NOX) | 7 ksf | 277 ksf (ROG) |
| Fast food rest. w/ drive thru | 6 ksf (NOX) | 1 ksf | 277 ksf (ROG) |
| Fast food rest. w/o drive thru | 8 ksf (NOX) | 1 ksf | 277 ksf (ROG) |
| **Operational-Related Criteria Air Pollutant and Precursor Screening Level Sizes** | | | |
| **Land Use Type** | **Operational Criteria Pollutant Screening Size** | **Operational GHG Screening Size** | **Construction-Related Screening Size** |
| Hotel | 489 rooms (NOX) | 83 rooms | 554 rooms (ROG) |
| Motel | 688 rooms (NOX) | 106 rooms | 554 rooms (ROG) |
| Free-standing discount store | 76 ksf (NOX) | 15 ksf | 277 ksf (ROG) |
| Free-standing discount superstore | 87 ksf (NOX) | 17 ksf | 277 ksf (ROG) |
| Discount club | 102 ksf (NOX) | 20 ksf | 277 ksf (ROG) |
| Regional shopping center | 99 ksf (NOX) | 19 ksf | 277 ksf (ROG) |
| Electronic Superstore | 95 ksf (NOX) | 18 ksf | 277 ksf (ROG) |
| Home improvement superstore | 142 ksf (NOX) | 26 ksf | 277 ksf (ROG) |

| | | | |
|---|---|---|---|
| Strip mall | 99 ksf (NOX) | 19 ksf | 277 ksf (ROG) |
| Hardware/paint store | 83 ksf (NOX) | 16 ksf | 277 ksf (ROG) |
| Supermarket | 42 ksf (NOX) | 8 ksf | 277 ksf (ROG) |
| Convenience market (24 hour) | 5 ksf (NOX) | 1 ksf | 277 ksf (ROG) |
| Convenience market with gas pumps | 4 ksf (NOX) | 1 ksf | 277 ksf (ROG) |
| Bank (with drive-through) | 17 ksf (NOX) | 3 ksf | 277 ksf (ROG) |
| General office building | 346 ksf (NOX) | 53 ksf | 277 ksf (ROG) |
| Office park | 323 ksf (NOX) | 50 ksf | 277 ksf (ROG) |
| Government office building | 61 ksf (NOX) | 12 ksf | 277 ksf (ROG) |
| Government (civic center) | 149 ksf (NOX) | 27 ksf | 277 ksf (ROG) |
| Pharmacy/drugstore w/ drive through | 49 ksf (NOX) | 10 ksf | 277 ksf (ROG) |
| Pharmacy/drugstore w/o drive through | 48 ksf (NOX) | 10 ksf | 277 ksf (ROG) |
| Medical office building | 117 ksf (NOX) | 22 ksf | 277 ksf (ROG) |
| Hospital | 226 ksf (NOX) | 39 ksf | 277 ksf (ROG) |
| Hospital | 334 beds (NOX) | 84 ksf | 337 beds (ROG) |
| Warehouse | 864 ksf (NOX) | 64 ksf | 259 ksf (NOX) |
| General light industry | 541 ksf (NOX) | 121 ksf | 259 ksf (NOX) |
| General light industry | 72 acres (NOX) | - | 11 acres (NOX) |
| General light industry | 1249 employees (NOX) | - | 540 employees (NOX) |
| General heavy industry | 1899 ksf (ROG) | - | 259 ksf (NOX) |
| General heavy industry | 281 acres (ROG) | - | 11 acres (NOX) |
| Industrial park | 553 ksf (NOX) | 65 ksf | 259 ksf (NOX) |
| Industrial park | 61 acres (NOX) | - | 11 acres (NOX) |
| Industrial park | 1154 employees (NOX) | - | 577 employees (NOX) |
| Manufacturing | 992 ksf (NOX) | 89 ksf | 259 ksf (NOX) |

Notes: du = dwelling units; ksf = thousand square feet; $NO_X$ = oxides of nitrogen; ROG = reactive organic gases.
Screening levels include indirect and area source emissions. Emissions from engines (e.g., back-up generators) and industrial sources subject to Air District Rules and Regulations embedded in the land uses are not included in the screening estimates and must be added to the above land uses.
Refer to Appendix D for support documentation.

As opposed to the actual thresholds of significance, the screening criteria listed above are solely for reference in determining potential significance.

The air quality CEQA thresholds of significance are located below in **Table 2**. The data is obtained directly from the BAAQMD CEQA Guidelines from May 2017.

**Table 2. Air Quality CEQA Thresholds of Significance***

| **Pollutant** | **Construction-Related** | | **Operational-Related** | |
|---|---|---|---|---|
| **Project-Level** | | | | |
| **Criteria Air Pollutants and Precursors (Regional)** | **Average Daily Emissions (lb/day)** | **Average Daily Emissions (lb/day)** | | **Maximum Annual Emissions (tpy)** |
| ROG | 54 | 54 | | 10 |

| | | | | |
|---|---|---|---|---|
| NOX | 54 | 54 | | 10 |
| PM10 | 82 (exhaust) | 82 | | 15 |
| PM2.5 | 54 (exhaust) | 54 | | 10 |
| PM10/PM2.5 (fugitive dust) | Best Management Practices | | None | |
| Local CO | None | 9.0 ppm (8-hour average), 20.0 ppm (1-hour average) | | |
| GHGs – Projects other than Stationary Sources | None | Compliance with Qualified GHG Reduction Strategy OR 1,100 MT of $CO_2e$/yr OR 4.6 MT $CO_2e$/SP/yr (residents+employees) | | |
| GHGs –Stationary Sources | None | | 10,000 MT/yr | |
| Risk and Hazards for new sources and receptors (Individual Project)* | Same as Operational Thresholds** | Compliance with Qualified Community Risk Reduction Plan OR Increased cancer risk of >10.0 in a million Increased non-cancer risk of > 1.0 Hazard Index (Chronic or Acute) Ambient $PM_{2.5}$ increase: > 0.3 µg/$m^3$ annual average<br><br>Zone of Influence: 1,000-foot radius from property line of source or receptor | | |
| Risk and Hazards for new sources and receptors (Cumulative Threshold)* | Same as Operational Thresholds** | Compliance with Qualified Community Risk Reduction Plan OR Cancer: > 100 in a million (from all local sources) Non-cancer: > 10.0 Hazard Index (from all local sources) (Chronic) $PM_{2.5}$: > 0.8 µg/$m^3$ annual average (from all local sources)<br><br>Zone of Influence: 1,000-foot radius from property line of source or receptor | | |
| Accidental Release of Acutely Hazardous Air Pollutants* | None | Storage or use of acutely hazardous materials locating near receptors or new receptors locating near stored or used acutely hazardous materials considered significant | | |
| Odors* | None | 5 confirmed complaints per year averaged over three years | | |

| Air Quality CEQA Thresholds of Significance* | | |
|---|---|---|
| **Pollutant** | **Construction-Related** | **Operational-Related** |
| **Plan-Level** | | |
| Criteria Air Pollutants and Precursors | None | 1. Consistency with Current Air Quality Plan control measures, and<br>2. Projected VMT or vehicle trip increase is less than or equal to projected population increase |
| GHGs | None | Compliance with Qualified GHG Reduction Strategy OR 6.6 MT CO2e/SP/yr (residents + employees) |
| Risks and Hazards* | None | 1. Overlay zones around existing and planned sources of TACs (including adopted Risk Reduction Plan areas) and<br>2. Overlay zones of at least 500 feet from all freeways and high-volume roadways |
| Accidental Release of Acutely Hazardous Air Pollutants | None | None |
| Odors* | None | Identify the location, and include policies to reduce the impacts, of existing or planned sources of odors |
| **Regional Plans (Transportation and Air Quality Plans)** | | |
| GHGs, Criteria Air Pollutants and Precursors, and Toxic Air Contaminants | None | No net increase in emissions |

CEQA = California Environmental Quality Act; CO = carbon monoxide; CO2e = carbon dioxide equivalent; GHGs = greenhouse gases; lb/day = pounds per day; MT = metric tons; NOX = oxides of nitrogen; PM2.5= fine particulate matter with an aerodynamic resistance diameter of 2.5 micrometers or less; PM10 = respirable particulate matter with an aerodynamic resistance diameter of 10 micrometers or less; ppm = parts per million; ROG = reactive organic gases; SO2 = sulfur dioxide; SP = service population; TACs = toxic air contaminants; TBP = toxic best practices; tons/day = tons per day; tpy = tons per year; yr= year; TBD: to be determined.

*The receptor thresholds were the subject of litigation in *California Building Industry Association v. Bay Area Air Quality Management District* (2015) 62 Cal. 4th 369. The use of the receptor thresholds is discussed in section 2.8 of these Guidelines.

** The Air District recommends that for construction projects that are less than one year duration, Lead Agencies should annualize impacts over the scope of actual days that peak impacts are to occur, rather than the full year.

The BAAQMD lists operational-related thresholds of significance for GHG emissions. It does not have thresholds of significance for construction-related GHG emissions. However, the GHG emissions from construction should be quantified and disclosed, and a significance of emission impacts be determined in relation to meeting the Assembly Bill 32 GHG reduction goals as required by the Public Resources Code, Section 21082.2. The lead agency is encouraged to incorporate best management practices in reduction of GHG emissions during construction where possible.

## 3.3 Air Quality Monitoring Data

The BAAQMD currently operates 36 air monitoring stations throughout the SFBAAB. The station closest to the site is the San Jose – Knox Avenue station, located two to three miles from the site. Summarized air pollutant data is listed in **Table 3** below; the station monitors for $PM_{2.5,}$ carbon monoxide, nitric oxide, nitrogen oxides, nitrogen dioxide, and black carbon.

The federal health standard for $PM_{2.5}$ is 35 micrograms per cubic meter averaged over a 24-hour day. Black carbon is a component of fine particulate matter, or $PM_{2.5}$, and consists of pure carbon in several forms. It has the same health impacts as $PM_{2.5}$, and acts as an agent of climate change. There are no air quality standards for black carbon, other than the federal and state $PM_{2.5}$ standards.

There are two federal standards for carbon monoxide: 90 parts per ten million (pptm) averaged over 8 hours, and 350 pptm averaged over one hour.

Nitric oxide (NO) and nitrogen dioxide ($NO_2$) are generally by-products of combustion. They rarely present in sufficient concentrations in the outside air to be a health concern in the Bay Area by themselves, but they are two of the major precursor pollutants associated with the formation of ozone. contributes to the formation of ozone. Oxides of nitrogen ($NO_x$) is a group term for the pollutants nitric oxide (NO) and nitrogen dioxide ($NO_2$). Relevant ambient air quality standards are set specifically for nitrogen dioxide; the federal standard for $NO_2$ is 100 parts per billion averaged over one hour.

**Table 3. San Jose – Knox Avenue Air Quality Monitoring Station, Yearly Historical Data**

| **Measured Air Pollutant Levels, Annual Highest and Average Concentrations** | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | **2014*** | | **2015** | | **2016** | | **2017** | | **2018**** | |
| **Pollutant (unit)** | **Highest** | **Average** | **Highest** | **Average** | **Highest** | **Average** | **Highest** | **Average** | **Highest** | **Average** |
| **$PM_{2.5}$ ($\mu g/m^3$)** | 985 | 7 | 99 | 8.4 | 179 | 9.1 | 129 | 10.9 | 100 | 9.2 |
| **NO (ppb)** | 166 | 18 | 219 | 17 | 173 | 12 | 160 | 12 | 135 | 12 |
| **$NO_x$ (ppb)** | 207 | 37 | 246 | 35 | 199 | 28 | 196 | 29 | 165 | 30 |
| **$NO_2$ (ppb)** | 65 | 19 | 61 | 18 | 52 | 16 | 77 | 17 | 52 | 18 |
| **BC ($\mu g/m^3$)** | 7.3 | 1.1 | 9.5 | 1 | 16.4 | 0.9 | 16.9 | 0.9 | 11.2 | 0.9 |
| **Measured Air Pollutant Levels, Highest 1-hour and 8-hour Concentrations** | | | | | | | | | | |
| | **2014*** | | **2015** | | **2016** | | **2017** | | **2018** | |
| | **Highest 1-hour** | **Highest 8-hour** | **Highest 1-hour** | **Highest 8-hour** | **Highest 1-hour** | **Highest 8-hour** | **Highest 1-hour** | **Highest 8-hour** | **Highest 1-hour** | **Highest 8-hour** |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **CO (pptm)** | 22 | 18 | 27 | 20 | 25 | 16 | 26 | 18 | 22 | 18 |

Source: BAAQMD Air Monitoring Data (http://www.baaqmd.gov/about-air-quality/current-air-quality/air-monitoring-data)

*Data for 2014 starting in August, through December

**Data for 2018 starting in January, through May 6

µg/$m^3$ = measured in micrograms per cubic meter

ppb = measured in parts per billion

The second closet station to the site is the San Jose – Jackson Street station, located four to five miles from the site. The summarized air pollutant data for this station is listed in **Table 4** below, to provide additional information on pollutants, specifically ozone and sulfur dioxide, in the area not analyzed for at the San Jose – Knox Avenue station. Ozone ($O_3$) is the main ingredient in summertime smog. The federal health standard for ozone is 70 parts per billion averaged over 8 hours. Sulfur dioxide ($SO_2$) rarely rises to concentrations that become unhealthy in the Bay Area. The federal standard for sulfur dioxide is 75 parts per billion averaged over one hour.

**Table 4. San Jose – Jackson Street Air Quality Monitoring Station, Yearly Historical Data**

| **Measured Air Pollutant Levels, Annual Highest and Average Concentrations** | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **2013** | | **2014** | | **2015** | | **2016** | | **2017** | | **2018*** | |
| **Pollutant (unit)** | **Highest** | **Average** | **Highest** | **Average** | **Highest** | **Average** | **Highest** | **Average** | **Highest** | **Average** | **Highest** | **Average** |
| **$SO_2$ (ppb)** | 3 | 0.2 | 3 | 0.2 | 3 | 0.2 | 2 | 0.1 | 2 | 0.1 | 7 | 0.2 |
| **NO (ppb)** | 287 | 16 | 227 | 10 | 196 | 11 | 176 | 8 | 174 | 8 | 124 | 8 |
| **$PM_{2.5}$ (µg/$m^3$)** | 99 | 12.5 | 112 | 8.4 | 108 | 9.9 | 88 | 8.4 | 158 | 9.7 | 101 | 9 |
| **$NO_2$ (ppb)** | 59 | 15 | 58 | 13 | 49 | 13 | 51 | 11 | 68 | 12 | 49 | 13 |
| **$NO_x$ (ppb)** | 333 | 31 | 274 | 23 | 236 | 24 | 213 | 19 | 214 | 21 | 157 | 21 |
| **Measured Air Pollutant Levels, Highest 1-hour and 8-hour Concentrations** | | | | | | | | | | | | |
| | **2013** | | **2014** | | **2015** | | **2016** | | **2017** | | **2018** | |
| | **Highest 1-hour** | **Highest 8-hour** | **Highest 1-hour** | **Highest 8-hour** | **Highest 1-hour** | **Highest 8-hour** | **Highest 1-hour** | **Highest 8-hour** | **Highest 1-hour** | **Highest 8-hour** | **Highest 1-hour** | **Highest 8-hour** |
| **CO (pptm)** | 31 | 21 | 24 | 19 | 24 | 16 | 20 | 13 | 21 | 16 | 18 | 13 |
| **$O_3$** (ppb)** | 93 | 79 | 89 | 66 | 94 | 84 | 87 | 66 | 121 | 98 | 63 | 48 |

Source: BAAQMD Air Monitoring Data (http://www.baaqmd.gov/about-air-quality/current-air-quality/air-monitoring-data)

*Data for 2018 through May 6

**Concentrations for ozone are highest 1-hour average and 8-hour average concentrations

µg/$m^3$ = measured in micrograms per cubic meter
ppb = measured in parts per billion

## 3.4 Toxic Air Contaminants

Toxic Air Contaminants (TACs) are defined as a set of airborne pollutants that may pose a present or potential hazard to human health. Health effects associated with TACs are diverse, and are thus generally assessed locally rather than regionally. They can result in short-term (acute) health issues such as respiratory irritation or headaches, or long-term (chronic) health issues such as cancer or asthma. In addition, they are identified if they are carcinogenic. Carcinogens are assumed to have no safe threshold below which health impacts would not occur, whereas non-carcinogenic substances are generally assumed to have a safe threshold. For assessing community risks and hazards, BAAQMD recommends a 1,000-foot radius around the project property boundary, with both individual and nearby cumulative sources within that range taken into consideration.

In the Bay Area, there are several specific urban communities where exposure to TACs is relatively high in comparison to others; this includes the region of San Jose containing the site. To address these areas, the BAAQMD initiated the Community Air Risk Evaluation (CARE) program in 2004 to identify areas with higher risk levels from TACs located with sensitive populations. The CARE program found that diesel PM, primarily from on- and off-road mobile sources, accounts for over 80 percent of inhalation cancer risk from TACs in the Bay Area (BAAQMD, 2017).

TACs are identified by the California Office of Environmental Health Hazard Assessment (OEHHA), and listed in BAAQMD's Regulation 2, Rule 5: New Source Review of Toxic Air Contaminants. TACs for the site from construction or post-construction operation include compounds found in gasoline and diesel fuels and exhaust. In addition, $PM_{2.5}$ may contain TACs, as it is a complex mixture of substances that includes elements such as carbon and metals, compounds such as nitrates, organics, and sulfates, and complex mixtures such as diesel exhaust and wood smoke. Gasoline stations are listed as a common stationary source type for TAC and $PM_{2.5}$ emissions in the BAAQMD CEQA Guidelines from 2017.

## 3.5 Sensitive Receptors

Sensitive receptors include residential areas, hospitals and health care facilities, schools, or other areas where people and families may reside, or areas with groups particularly vulnerable to air contaminants such as children and elderly, athletes, or people with cardiovascular or chronic respiratory diseases. Those located within 1,000 feet of the source are of particular concern.

The site is located in a mixed residential and commercial area. Located to the east within 1,000 feet are residences, the closest being approximately 500 feet to the east; located to the west within 1,000 feet are commercial properties. Further outwards include more residences as well as schools north, south, east, and west of the site within approximately one mile. These include Holly Oak Elementary School 3,500 feet southeast of the site, East Valley Christian School and Kiddie Kountry Pre-School 3,500 feet east-northeast of the site, Leyva Middle School

approximately 3,000 feet south of the site, Whaley Elementary School approximately 5,000 feet southwest of the site, and Katharine Smith Elementary School approximately 3,500 feet west-northwest of the site. Commercial properties are located north, south, and west of the site. Several schools are located less than one mile from the site.

Approximately two and a half miles east of the site are the foothills bordering San Jose. Further west, north, and south continue more developed areas.

# 4.0 IMPACTS AND MITIGATION

## 4.1 Project Impacts

The site currently consists of an approximate 1,560 square foot station building, with a canopy over eight multi-product fuel dispensers. The intended project proposes to demolish the existing building and remove the existing underground storage tanks, and construct a new 3,054-square foot AM/PM convenience store, with a 149-square foot service yard, a 200-square foot trash enclosure, a 971-square foot automatic self-service car wash, and a 4,872-square foot canopy covering sixteen multi-product fuel dispensers. The existing underground storage tanks will be removed and new underground storage tanks will be installed. New underground storage tanks will include one 25,000-gallon tank for regular unleaded gasoline and one 12,000-gallon split tank with 6,000 gallons premium unleaded gasoline on one side and 6,000-gallon for diesel storage on the other side.

In accordance with CEQA Guidelines, a project impact would be considered significant if the project would:

- Conflict with or obstruct implementation of the applicable air quality plan;
- Violate any air quality standard or contribute substantially to an existing or projected air quality violation;
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors);
- Expose sensitive receptors to substantial pollutant concentrations; or
- Create objectionable odors affecting a substantial number of people.

The BAAQMD CEQA Air Quality Guidelines, May 2017, provides the thresholds of significance for the above. Table 2 in Section 3.2.1 summarizes the BAAQMD reommended thresholds.

In the sections below, an evaluation of the project-related impacts and comparison to the thresholds of significance is presented.

## 4.2 GHG Emissions Methodology

This evaluation compares project-related GHG emissions to current BAAQMD's CEQA thresholds of significance for operational GHG emissions: 1,100 metric tons (MT) of carbon dioxide equivalents (CO2e) per year.

This analysis evaluates incremental project impacts by netting out emissions from the current use as an 8-pump gas station and convienance store versus the proposed use as a 16-pump gas station and convienance store. Consistent with the approach for estimating operational GHG emissions, the total GHG emissions from current and proposed construction/operations were estimated using the California Emissions Estimation Model (CalEEMod™ Version 2016.3.2).

Emissions for current operations were estimated based on the building size and 8-pump gas station. The layout of the current operation is presented in **Table 5**. Traffic patterns and trip rates were based on the results of a Traffic Operations Analysis conducted by KD Anderson and Associates (October 24, 2017). When modeling parameters were unknown, the default values in CalEEMod™ were utilized for modeling GHG emissions from current operations.

**Table 5: Current Layout**

| Proposed Land Use | CalEEMod Land Use Type | Size | Unit |
|---|---|---|---|
| Gasoline Pumps | Gasoline/Service Station | 8 | Pumps |

Emissions for the proposed demolition, construction, and operation of a convience store, 16-pump gas station, car wash, and parking area were estimated using CalEEMod™. The proposed layout of the project is presented in **Table 6**. Traffic patterns and trip rates were based on the results of a Traffic Operations Analysis conducted by KD Anderson and Associates (October 24, 2017) for the propose land use. Emissions from on-site demolition and construction phases were estimated based on a proposed construction equipment inventory and number of days for each phase as provided by the engineering design group for the project. The estimated demolition quantities and construction phasing is presented in **Table 7**. A proposed demolition and construction equipment list is presented in **Table 8** and the estimated construction on-road trips is presented in **Table 9**. For indirect source emissions from electricity generation/distribution, water and wastewater treatment, and solid waste disposal, default values were utilized for the model.

**Table 6: Proposed Project**

| Proposed Land Use | CalEEMod Land Use Type | Proposed Size | Unit |
|---|---|---|---|
| Convenience Store | Convience Store (24 hrs) | 3,054 | Square feet |
| Gasoline Pumps | Gasoline/Service Station | 16 | Pumps |
| Parking | Park Lot | 13 | Spaces |
| Car Wash | User Defined | 971 | Square feet |

**Table 7: Demolition Quantities and Construction Phasing**

| Demolition Quantities | |
|---|---|
| **Structures** | **Existing Building ($ft^2$)** |
| Convenience Store | 1,560 |

**Table 7: Demolition Quantities and Construction Phasing (Continued)**

| Construction Schedule | | | | |
|---|---|---|---|---|
| **Phase** | **Start Date*** | **End Date*** | **# Days per Week** | **Total Days** |
| Demolition | 09/01/2018 | 09/14/2018 | 5 | 10 |
| Grading | 09/16/3018 | 09/30/2018 | 5 | 14 |
| Construction | 10/01/2018 | 02/10/2019 | 5 | 100 |
| Paving | 02/01/2019 | 02/15/2019 | 5 | 10 |
| Architectural Coating (Painting) | 02/01/2019 | 02/25/2019 | 3 | 3 |

* Dates are estimated. Start date has not been finalized.

**Table 8: Demolition and Construction equipment list**

| Equipment List | | | | | |
|---|---|---|---|---|---|
| **Phase** | **Equipment** | **Quantity** | **Usage (hrs/day)** | **HP** | **Load Factor** |
| Demolition | Excavator | 1 | 4 | 158 | 0.38 |
| | Skid Steer Loaders | 1 | 4 | 65 | 0.37 |
| | Other Material Handling Equipment (Trucks) | 2 | 6 | 97 | 0.37 |
| Grading | Excavator | 1 | 4 | 158 | 0.38 |
| | Skid Steer Loader | 1 | 4 | 65 | 0.37 |
| | Other Material Handling Equipment (Water Truck) | 1 | 2 | 97 | 0.37 |
| | Rubber Tire Dozers | 1 | 6 | 247 | 0.40 |
| Construction | Skid Steer Loader | 1 | 4 | 65 | 0.37 |
| | Other Material Handling Equipment (Trucks) | 3 | 6 | 97 | 0.37 |
| | Crane | 1 | 6 | 231 | 0.29 |
| | Forklift | 1 | 6 | 89 | 0.20 |
| | Trencher | 1 | 4 | | |
| Paving | Paver | 1 | 6 | 130 | 0.42 |

| | | | | | |
|---|---|---|---|---|---|
| | Roller | 2 | 6 | 80 | 0.38 |
| | Skid Steer Loader | 1 | 4 | 65 | 0.37 |
| | Other Material Handling Equipment (Haul Trucks, Cement Truck) | 4 | 6 | 97 | 0.37 |
| Architectural Coating | Air Compressor | 1 | 6 | 78 | 0.48 |

**Table 9: Construction on-road trips**

| On-Road Trips | | | | | | |
|---|---|---|---|---|---|---|
| **Phase Name** | **Worker (trips/day)** | **Vendor (trips/day)** | **Hauling (Total Trips)** | **Worker (miles/trip)** | **Vendor (miles/trip)** | **Hauling (miles/trip)** |
| Demolition | 10 | 0 | 20 | 10.80 | 7.3 | 20 |
| Grading | 5 | 0 | 10 | 10.80 | 7.3 | 20 |
| Construction | 5 | 1 | 0 | 10.80 | 7.3 | 20 |
| Paving | 15 | 0 | 0 | 10.80 | 7.3 | 20 |
| Architectural Coating | 1 | 0 | 0 | 10.80 | 7.3 | 20 |

A traffic operations analysis was completed by KD Anderson & Associates for current and proposed traffic patterns to estimate the number of trips. The results of the traffic analysis is presented in **Table 10**. The calculated Cal EEMod trip rates, based on the traffic analysis, is presented in **Table 11** for the current operation and proposed operation.

**Table 10: Traffic Analysis with Trip Rates**

| Trip Generation [1] | | | | | |
|---|---|---|---|---|---|
| **Land Use** | **Amount** | **Trip Rate** | | **Trips** | |
| | | **AM Peak Hour** | **PM Peak Hour** | **AM Peak Hour** | **PM Peak Hour** |
| **Proposed Site** | | | | | |
| Gas Station with Convience Store | 16 VFP | 11.84 | 13.86 | 189 | 222 |
| Convience Store with Gas Pumps | 3,054 SF | 40.92 | 50.92 | 125 | 156 |
| Automated Car Was | 971 SF | NA | 14.12 | NA | 14 |
| **Current Site** | | | | | |
| Gas Station | 8 VFP | 12.16 | 13.87 | 97 | 111 |

[1] From "*Traffic Operations Analysis for ARCO PM/AM Gas Station & Convienence Market Site*", by KD Anderson & Associates, October 24, 2017. VFP = Vehicle Fueling Positions SF = Square Feet

**Table 11: Cal EEMod Daily Trip Estimates**

| **Land Use** | **CalEEMod Land Use Type** | **Average Daily Trip Rate [1]** | **Average Trip Length (miles)** | **Daily VMT** | **Annual VMT** | **% of Total VMT** |
|---|---|---|---|---|---|---|
| **Proposed Site** | | | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| Convenience Store | Convenience Market (24 hrs) | 42.33 | 9.5 | 269 | 98,325 | 30 |
| Gasoline Pumps | Gasoline/Service Station | 115.02 | 7.3 | 2,906 | 1,060,532 | 70 |
| Automated Car Wash | User Defined | (2) | (2) | (2) | (2) | (2) |
| **Current Site** | | | | | | |
| Gas Station | Gasoline/Service Station | 21.63 | 7.3 | 273 | 99,700 | 100 |

(1) Average daily trip rate calculated based on Traffic Study (Table 9) for Trip Rate at PM peak hour x unit size of land use (per 1,000 SF).
(2) Automated Car Wash trips assumed to be included in patrons pumping gas and/or visiting convenience store.

## 4.3 GHG Emissions Results

A summary of the project GHG operational emissions is presented in **Table 12** starting in the baseline year of 2019. The net GHG emissions from project generated traffic, energy, waste and water result in emissions is 547.78 MT of CO2e per year. This value is less than the BAAQMD threshold; therefore, the proposed project is in compliance with the qualified GHG Reduction Strategy.

**Table 12: Summary of Project Operational GHG and Current Operation GHG Emissions**

| Source | Units | 2019 GHG Emissions (Project) (1) | 2019 GHG Emissions (Current) (1) | Incremental Project Emissions |
|---|---|---|---|---|
| Area | MT CO2e/yr | 6.30E-04 | 1.50E-04 | 4.80E-04 |
| Energy | | 8.86 | 9.70 | -0.84 |
| Mobile | | 596.76 | 52.59 | 544.17 |
| Waste | | 6.71 | 2.17 | 4.54 |
| Water | | 0.66 | 0.75 | -0.09 |
| Totals | MT CO2e/yr | 612.99 | 65.21 | 547.78 |
| BAAQMD Threshold | MT CO2e/yr | | | 1,100 |
| Exceeds Threshold | | | | **No** |

(1) GHG Emissions data from CalEEMod version 2016.3.2

There are no CEQA thresholds for comparison to construction emissions. However, **Table 13** presents the total GHG emissions from construction activities.

**Table 13: Summary of Project Construction GHG (2018 & 2019)**

| Pollutant | Off-road Mobile Emissions (MT CO2e) | Onroad Mobile Emissions (MT CO2e) | Total Emissions (MT CO2e) | Construction Threshold |
|---|---|---|---|---|
| Total GHG | 73.46 | 5.51 | 78.97 | None |

## 4.4 Criteria Air Pollutants and Precursors Impacts

***Construction Emissions***

During the construction phase of the project, emissions of air pollutants are expected to occur from the demolition activities, excavation, grading, new building construction, paving and from the application of architectural coatings. During demolition, excavation, grading and some building construction activities, fugitive dust could be generated. Estimated emissions of air pollutants during the construction phase of the project were compared to the BAAQMD significance criteria, which include thresholds based on total mass emissions on a pound per day basis, health risk based thresholds for diesel particulate matter, and a concentration threshold for $PM_{2.5}$ on an annual basis. Construction activity is anticipated to include each of these comparisons and are discussed separately below.

Construction emissions were estimated for the project using CalEEMod (Version 2016.3.2). Data supplied by the project developer was used and for other parameters that were not provided or not available, CalEEMod default values were utilized. **Tables 7, 8, and 9** in Section 4.2 presents the construction phase data as well as the types and numbers of construction equipment to be onsite.

**Table 14** provides the estimated construction phase/period emissions, annualized emissions, and average daily emissions (computed by dividing the total annualized construction period emissions by the number of anticipated construction days). Emissions are totals of all construction phases. Based on the CalEEMod results, no emissions of criteria pollutants during construction would exceed the BAAQMD daily significance levels.

**Table 14: Construction Criteria Pollutant Emissions Summary**

| Estimate Construction Emissions | | | | | | |
|---|---|---|---|---|---|---|
| **Units** | **ROG** | **NOx** | **$PM_{10}$*** | **$PM_{2.5}$*** | **CO** | **SOx** |
| **Annual per CalEEMod** | | | | | | |
| Tons/yr | 0.14 | 1.00 | 0.07 | 0.06 | 0.74 | 1.14E-03 |
| **Normalized for 137 day Construction Period** | | | | | | |
| Tons/day | 3.73E-04 | 2.74E-03 | 1.88E-04 | 1.68E-04 | 2.04E-03 | 3.13E-06 |
| Lbs/day | 0.75 | 5.48 | 0.38 | 0.34 | 4.08 | 6.25E-03 |
| BAAQMD Thresholds | 54 | 54 | 82 | 54 | NA | NA |
| Exceed Threshold | No | No | No | No | NA | NA |

* Includes exhaust plus fugitives.

As previously stated, construction activity is anticipated to include demolition of existing buildings, excavation, grading, building construction, paving and application of architectural coatings. During demolition, excavation, grading and some building construction activities, fugitive dust ($PM_{2.5}$) could be generated. Most of the dust would occur during excavation and grading activities. The amount of dust generated would be highly variable and would be dependent on the size of the area disturbed at any given time, amount of activity, and soil/weather conditions. In addition to the fugitive dust emissions, emissions of combustion $PM_{2.5}$ would also occur. However, based on CalEEMod, criteria pollutants are much less than BAAQMD thresholds for construction and are insignificant.

***Operational Emissions***

The operational emissions for the (post-construction) project would be associated with vehicular and residential related type emissions. **Table 15** presents the estimated daily operational emissions.

**Table 15: Estimated Operational Emissions Summary**

| Estimated Operational Emissions | | | | | | |
|---|---|---|---|---|---|---|
| **Units** | **ROG** | **NOx** | **$PM_{10}$ *** | **$PM_{2.5}$ *** | **CO** | **SOx** |
| Tons/yr | 0.46 | 1.66 | 0.44 | 0.12 | 3.31 | 6.50E-03 |
| Lb/day [(1)] | 2.52 | 9.08 | 2.41 | 0.68 | 18.15 | 0.04 |
| BAAQMD Thresholds | 54 | 54 | 82 | 54 | NA | NA |
| Exceed Threshold | No | No | No | No | NA | NA |

* Includes exhaust plus fugitives.
[(1)] lb/day = tons/yr/365 days/yr x 2,000 lbs/ton

Carbon monoxide emissions from traffic generated by operation of the post-construction project would be the pollutant of greatest concern at the local level. Congested intersections with a large volume of traffic have the greatest potential to cause high-localized concentrations of carbon monoxide. Air pollutant monitoring data indicate that carbon monoxide levels have been at healthy levels (i.e., below state and federal standards) in the Bay Area since the early 1990s. As a result, the region has been designated as attainment for the standard. There is an ambient air quality monitoring station in San Jose that measures carbon monoxide concentrations. The highest measured level over any 8-hour averaging period during the last three years is less than or equal to 16 parts per thousand million (pptm). Intersections affected by the project operational traffic would not increase traffic at the affected intersections more than 44,000 vehicles per hour and thus would not cause a violation of an ambient air quality standard or have a considerable contribution to cumulative violations of these standards.Based on the discussion above, operation of the project is not expected to exceed the significant operational thresholds, violate any air quality standard, contribute substantially to an existing/projected air quality violation, or expose sensitive receptors to substantial air pollutant levels.

***Air Emissions - Air Operation Permit***

In addition to the vehicular and residential related type emissions, operational emissions for the (post-construction) project would also be associated with the transfer and storage of unleaded regular gasoline, premium unleaded gasoline, and diesel fuel into underground storage tanks (USTs).

New underground storage tanks will include one 25,000-gallon tank for regular unleaded gasoline and one 12,000-gallon split tank with 6,000 gallons premium unleaded gasoline on one side and 6,000-gallon for diesel storage on the other side. Pollutant emissions from the storage of gasoline and diesel are comprised of volatile organic compounds (VOC) and toxic air contaminants contained in the gasoline and diesel. The facility will be required to obtain a minor stationary source air permit for emissions of VOCs and TACs from fuel transferred for storage and fuel dispensing into customers vehicles.

Stage I Vapor Recovery will be used during the refueling of gasoline storage tanks to reduce hydrocarbon emissions. Vapors in the tank, which are displaced by the incoming gasoline, are routed through a hose into the cargo tanker, instead of being vented to the atmosphere. The facility will utilize dual point submerged fill. Stage II Vapor recovery will be used at the fueling dispensers.

Emissions from gasoline and diesel transfers to USTs was calculated based on the proposed maximum fuel throughput and tank capacities utilizing EPA TANKS 4.09d emissions software. The facility currently utilizes and will continue to utilize Stage I Vapor Control Systems for each UST as well as Stage II Vapor Recovery Systems for fuel dispensing to vehicles from pumps. **Table 16** presents a summary of incremental project emissions for the transfer of gasoline and diesel to USTs.

**Table 16: Summary of Project Operational VOC and TAP Current and Proposed Operation Emissions from USTs**

| Summary of VOC and TAP Emissions from USTs * | | | | | | |
|---|---|---|---|---|---|---|
| **Pollutant** | **Proposed (lbs/yr)** | **Proposed (lbs/hr)** | **Existing (lbs/yr)** | **Existing (lbs/hr)** | **Incremental Project Emissions (lb/yr)** | **Incremental Project Emissions (lb/hr)** |
| VOC | 1,977 | 0.23 | 781.38 | 0.09 | 1,195.62 | 0.14 |
| Benzene | 5.93 | 6.77E-04 | 2.34 | 2.67E-04 | 3.59 | 4.13E-04 |
| Ethylbenzene | 27.66 | 3.16E-03 | 10.93 | 1.25E-03 | 16.73 | 1.91E-03 |
| n-Hexane | 19.75 | 2.26E-03 | 7.80 | 8.91E-04 | 11.95 | 1.40E-03 |
| Toluene | 138.28 | 0.02 | 54.63 | 0.01 | 83.65 | 0.01 |
| Xylenes | 138.29 | 0.02 | 54.63 | 0.01 | 83.66 | 0.01 |

* Values presented include Stage I Vapor Control Efficiency

Vehicle fueling emissions occur when gasoline vapors are displaced by rising liquid in the vehicle fuel tank during gasoline dispensing. These vapors are adsorbed in a carbon canister installed on vehicles equipped with an on board refueling vapor recovery system (ORVR). When fueling non-ORVR vehicles, these vapors can be collected by a Phase II vapor recovery system and returned to the storage tank. The facility will install a Stage II vapor recovery system for fuel dispensing; therefore, vehicles equipped with an ORVR will also have additional emissions control with an enhanced vapor recovery program (EVR) utilizing the Stage II vapor recovery system.

Emissions from the dispensing of gasoline were calculated using emission factors developed by the California Air Resources Board published in "*Revised Emission Factors for Phase II Vehicle Refueling at California Gasoline Dispensing Facilities",* California Air Resources Board, December 23, 2013. Emission factors for dispensing of diesel is based on AP42, Section 5.1 and "*Gasoline Station Emission Calculator*", Colorado Department of Public Health and Environment. Based on that publication, the percent of gasoline dispensed to ORVR vehicles in California is estimated at 83% in 2018 and 85% in 2019. The emissions data presented in **Table 17** includes ORVR vehicles and non-ORVR vehicles based on the estimated percent provided in the publication.

**Table 17: Fuel Dispensing Emissions**

| Summary of VOC and TAP Emissions from Fuel Dispensing | | | | | | |
|---|---|---|---|---|---|---|
| **Pollutant** | **Proposed (lbs/yr)** | **Proposed (lbs/hr)** | **Existing (lbs/yr)** | **Existing (lbs/hr)** | **Incremental Project Emissions (lb/yr)** | **Incremental Project Emissions (lb/hr)** |
| VOC | 627.17 | 0.07 | 276.86 | 0.03 | 350.31 | 0.04 |
| Benzene | 1.83 | 2.09E-04 | 0.79 | 9.06E-05 | 1.04 | 1.18E-04 |
| Ethylbenzene | 0.31 | 3.50E-05 | 0.13 | 1.52E-05 | 0.18 | 1.98E-05 |
| n-Hexane | 4.15 | 4.73E-04 | 1.80 | 2.05E-04 | 2.35 | 2.68E-04 |
| Toluene | 4.76 | 5.43E-04 | 2.07 | 2.36E-04 | 2.69 | 3.07E-04 |
| Xylenes | 1.27 | 1.45E-04 | 0.56 | 6.45E-05 | 0.71 | 8.05-05 |

**Table 18** presents a comparison of the proposed emissions from UST storage and fuel dispensing and BAAQMD TAC Trigger levels per BAAQMD Regulation 2, Rule 5, 2-5-110 and Table 2-5-1.

**Table 18: Summary of Project Operational TAP Emissions and Trigger Levels**

| Summary of TAP Emissions from USTs * | | | | | | |
|---|---|---|---|---|---|---|
| **Pollutant** | **Incremental Project Emissions (lb/yr)** | **Trigger Level (lbs/yr)** | **Incremental Project Emissions (lb/hr)** | **Trigger Level (lbs/hr)** | **Below Trigger (lb/yr)** | **Below Trigger (lb/hr)** |
| Benzene | 4.63 | 2.9 | 5.31E-04 | 0.06 | No | Yes |
| Ethylbenzene | 16.91 | 33 | 1.93E-03 | - | Yes | Yes |

| | | | | | | |
|---|---|---|---|---|---|---|
| n-Hexane | 14.30 | 270,000 | 1.67E-03 | - | Yes | Yes |
| Toluene | 86.34 | 12,000 | 0.01 | 82 | Yes | Yes |
| Xylenes | 84.37 | 27,000 | 0.01 | 49 | Yes | Yes |

* per BAAQMD Regulation 2, Rule 5, 2-5-110 and Table 2-5-1

Total benzene emissions were calculated at 4.63 pounds per year. Community risk was then calculated based on BAAQMD's *Risk and Hazards Emissions Screening Calculator and Distance Adjustment Multiplier for Gasoline Dispensing Facilities,* June 13, 2012. At approximately 500 feet or more to the nearest sensitive receptor (residence), results indicate that the total future fueling operations would result in maximum excess cancer risk of 1.67 in one million with no $PM_{2.5}$ concentration, which would be below BAAQMD thresholds of significance of 10 in one million cancer risk and 0.3 ug/m3 annual $PM_{2.5}$ concentration. Community risk levels from project operation are shown in **Table 19**.

**Table 19: Maximum Community Risk from Project Operation**

| Source | Maximum Cancer Risk (per million) | $PM_{2.5}$ Concentration ($ug/m^3$) | Hazard Index |
|---|---|---|---|
| Project Fueling Operation | 1.67 | - | <0.01* |
| BAAQMD Thresholds | 10 | 0.3 | 1.0 |
| Thresholds Exceeded | **No** | **No** | **No** |

* The Chronic Hazard Index equals 1 when the downwind concentration of benzene equals 71 µg/m3. The cancer risk of 10 per million is reached at 0.345 µg/m3, but the Hazard index is reached at 71 µg/m3. This is a difference of three orders of magnitude. Therefore, the benzene cancer risk of 10 per million will be exceeded far sooner than the chronic hazard index for benzene.

## 4.5 Mitigation measures

Post construction mitigation measures will include Stage I and Stage II Vapor Recovery Systems. The Project shall implement BAAQMD Recommended Best Control Measures for reducing fugitive dust emissions during construction. These measures are as follows:

- All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two or more times per day;
- All haul trucks transporting soil, sand, or other loose material off-site shall be covered;
- All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited;
- All vehicle speeds on unpaved roads shall be limited to 15 mph;
- All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used;

- Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations). Clear signage shall be provided for construction workers at all access points;
- All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation; and
- A publicly visible sign shall be posted with the telephone number and person to contact at the construction site regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.

## 4.6 Cumulative impacts

Cumulative stationary and mobile source impacts were assessed for the site and immediately surrounding area, to determine how the site may create an environmental impact in combination with nearby sources of pollution.

The BAAQMD Stationary Source Screening Analysis Tool was used to identify nearby stationary sources and assess cumulative impacts. This tool displays sources permitted with BAAQMD in Google Earth, and includes data for each site for cancer risk, hazard index, and $PM_{2.5}$. No sources were listed in the tool within 1,000 feet of the site, which is BAAQMD's recommended search radius (BAAQMD, 2012). Several sources were listed within 1,500 feet of the site, and are listed in **Table 20,** below. At the time of research, the Lucky #764 grocery store appeared on the BAAQMD Stationary Source Screening Analysis Tool map to be within 1,000 feet of the site, however the actual address for 2980 E Capitol Expressway is located at the intersection of Tully Road with East Capitol Expressway, approximately 2,500 feet from the site; it is also now a Safeway grocery store.

**Table 20. BAAQMD Stationary Source Screening Analysis Tool for Nearby Data**

| Source ID | Name | Address | Approximate Distance From Site (feet) | Cancer Risk (per one million people) | Hazard Index | $PM_{2.5}$ ($\mu g/m^3$) |
|---|---|---|---|---|---|---|
| 990 | Eastridge Mall – San Jose | 2200 Eastridge Loop, San Jose CA | 1200 | 30.93 | 0.011 | 0.007 |
| 1014 | JC Penny Company, Store #J1923-2 | 2230 Tully Road, San Jose CA | 1100 | 0.02 | 0.000 | 0.01 |
| 1023 | JC Penney Co., Inc. | 2240 Tully Road, San Jose CA | 1100 | No data | No data | No data |
| 1307 | Lucky #764[1] | 2980 E Capitol Expressway, San Jose CA | 2500 | 0.00 | 0.000 | 0.000 |

[1] Research on Google Maps as of May 17, 2018 showed the Lucky grocery store at 2980 East Capitol Expressway in San Jose as permanently closed and replaced by a Safeway grocery store.

The BAAQMD Highway Screening Analysis Tool was also utilized in assessing cumulative impacts from nearby sources. This tool lists $PM_{2.5}$, cancer risk, and both chronic and acute hazard indexes (HI) at heights of either 6 feet or 20 feet, depending on available data, for sections of major roadways, and displays this data using Google Earth. The nearest major roadway listed in the tool is U.S. Highway 101, the nearest links of which are located approximately 6,000 to 7,000 feet from the site. Road risk values from the tool are located below in **Table 21**.

**Table 21. BAAQMD Road Risk Values**

| HWY ID and Link | Road Risk Values (modeled at 6 feet high) | | | |
|---|---|---|---|---|
| **U.S. 101** | **PM2.5** | **Risk** | **Chronic HI** | **Acute HI** |
| Link 560 | 0.069 | 9.825 | 0.009 | 0.011 |
| Link 562 | 0.037 | 6.101 | 0.005 | 0.009 |
| Link 513 | 0.042 | 6.898 | 0.006 | 0.010 |

Due to the distance from the site being greater than one mile, these are not analyzed further for the cumulative impacts.

The BAAQMD significance threshold for cumulative cancer risk is 100 in a million and the cumulative hazard index greater than 10.0 (BAAQMD, 2017). Calculate cumulative cancer risk and analyze significance. For the above stationary sources, the cumulative cancer risk is 30.95 people per one million people, the total hazard index is 0.011, and the total $PM_{2.5}$ is 0.017. Based on the estimated operational emissions presented in Table 15, and the emissions and trigger levels discussed in Table 18, cumulative impacts from the proposed project and surrounding area are not anticipated to exceed BAAQMD significance thresholds.

## 4.7 Odor Impacts

During construction, various diesel-powered vehicles and equipment would result in related odors onsite, which would be temporary, lasting only during active construction activities. Post-construction odors may be from fueling activities related to typical active gas station operation. Operation of the site is not anticipated to produce any objectionable odors compared to existing site operations based on Stage I and Stage II Vapor Recovery Systems. Overall, odor impacts from project operations are considered to be less-than-significant.

## 4.8 Consistency with Air Quality Plans

The San Jose General Plan (Envision 2040) makes choices between conservation and development, and defines the desirable balance between social, environmental, and economic costs in San Jose. Envision San Jose 2040 represents the official policy regarding the future character and quality of development and assesses the amount, type, and phasing of development needed to achieve its social, economic, and environmental goals. This project as designed will not be in conflict with the City's general plan, and will implement mitigation measures for construction and operations in accordance with the land use type.

The BAAQMD 2017 Clean Air Plan provides a regional strategy to protect public health and protect the climate. To protect public health, the plan describes how the Air District will continue progress toward attaining all state and federal air quality standards and eliminating health risk disparities from exposure to air pollution among Bay Area communities. To protect the climate, the plan defines a vision for transitioning the region to a post-carbon economy needed to achieve ambitious greenhouse gas reduction targets for 2030 and 2050, and provides a regional climate protection strategy that will put the Bay Area on a pathway to achieve those GHG reduction targets. The net GHG emissions from project generated traffic, energy, waste and water is less than the BAAQMD threshold; therefore, the proposed project is in compliance with the qualified GHG Reduction Strategy.

## 5.0 CONCLUSION

Based on the site's location within the SFBAAB, and data obtained from the nearest BAAQMD air quality monitoring stations, air contaminants of particular concern around the site include ozone and particulate matter.

To measure cumulative impacts of multiple air pollution sources within an area, the BAAQMD recommends a search radius of 1,000 feet from the site. A few sources identified include a shopping mall and grocery store located near the site, but outside of this radius of concern. In addition, these had relatively low cancer risks and hazard indexes, below the BAAQMD significance thresholds. Major highways were identified as far enough away from the site not to warrant further analysis for inclusion with cumulative impacts. Cumulative impacts are not anticipated to exceed BAAQMD significance thresholds for the area within a 1,000-2,000 foot search radius from the site. At approximately 500 feet or more to the nearest sensitive receptor (residence), results indicate that the total future fueling operations would result in maximum excess cancer risk of 1.67 in one million with no $PM_{2.5}$ concentration, which would be below BAAQMD thresholds of significance of 10 in one million cancer risk and 0.3 ug/m3 annual $PM_{2.5}$ concentration.

Based on the CalEEMod results, no emissions of criteria pollutants during construction would exceed the BAAQMD daily significance levels.

The net GHG emissions from project generated traffic, energy, waste and water result in emissions of 547.78 MT of CO2e per year. This value is less than the BAAQMD threshold; therefore, the proposed project is in compliance with the qualified GHG Reduction Strategy.

Based on the information presented in this Air Quality Analysis and CEQA Assessment, construction and operation of the project is not expected to exceed the significant operational thresholds, violate any air quality standard, contribute substantially to an existing/projected air quality violation, or expose sensitive receptors to substantial air pollutant levels. A minor source air permit application will be submitted to the BAAQMD for construction and operation of the facility related to gasoline and diesel storage and dispensing when the design of the facility is finalized.

## 6.0 SOURCES

Bay Area Air Quality Management District (BAAQMD) CEQA Guidelines, May 2017, http://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en, accessed April 2018.

Envision San Jose 2040, City Planning Division, November 2011, https://www.sanjoseca.gov/DocumentCenter/Home/View/474, accessed April 2018.

Final 2017 Clean Air Plan, Spare the Air Cool the Climate: A Blueprint for Clean Air and Climate Protection in the Bay Area, Bay Area Air Quality Management District (BAAQMD), April 2017, http://www.baaqmd.gov/~/media/files/planning-and-research/plans/2017-clean-air-plan/attachment-a_-proposed-final-cap-vol-1-pdf.pdf?la=en, accessed April 2018.

"*Revised Emission Factors for Phase II Vehicle Refueling at California Gasoline Dispensing Facilities",* California Air Resources Board, December 23, 2013 https://www.arb.ca.gov/vapor/gdf-emisfactor/gdf-emisfactor.htm

"*Gasoline Station Emission Calculator*", Colorado Department of Public Health and Environment. https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=0ahUKEwj33tTei5fbAhXM2lMKHadjDrcQFggnMAA

## 7.0 LIMITATIONS

The findings contained in this report represent Antea Group's professional opinions based upon the currently available information and are arrived at in accordance with currently acceptable professional standards. For any reports cited that were not generated by Antea USA, Inc., the data from those reports are used "as is" and is assumed to be accurate. Antea USA, Inc. does not guarantee the accuracy of this data for the referenced work performed nor the inferences or conclusions stated in these reports. This report is based upon a specific scope of work requested by the client. The Contract between Antea Group and its client outlines the scope of work, and only those tasks specifically authorized by that contract or outlined in this report were performed. This report is intended only for the use of Antea Group's Client and anyone else specifically listed on this report. Antea Group will not and cannot be liable for unauthorized reliance by any other third party. Other than as contained in this paragraph, Antea Group makes no express or implied warranty as to the contents of this report.

# *Figures*

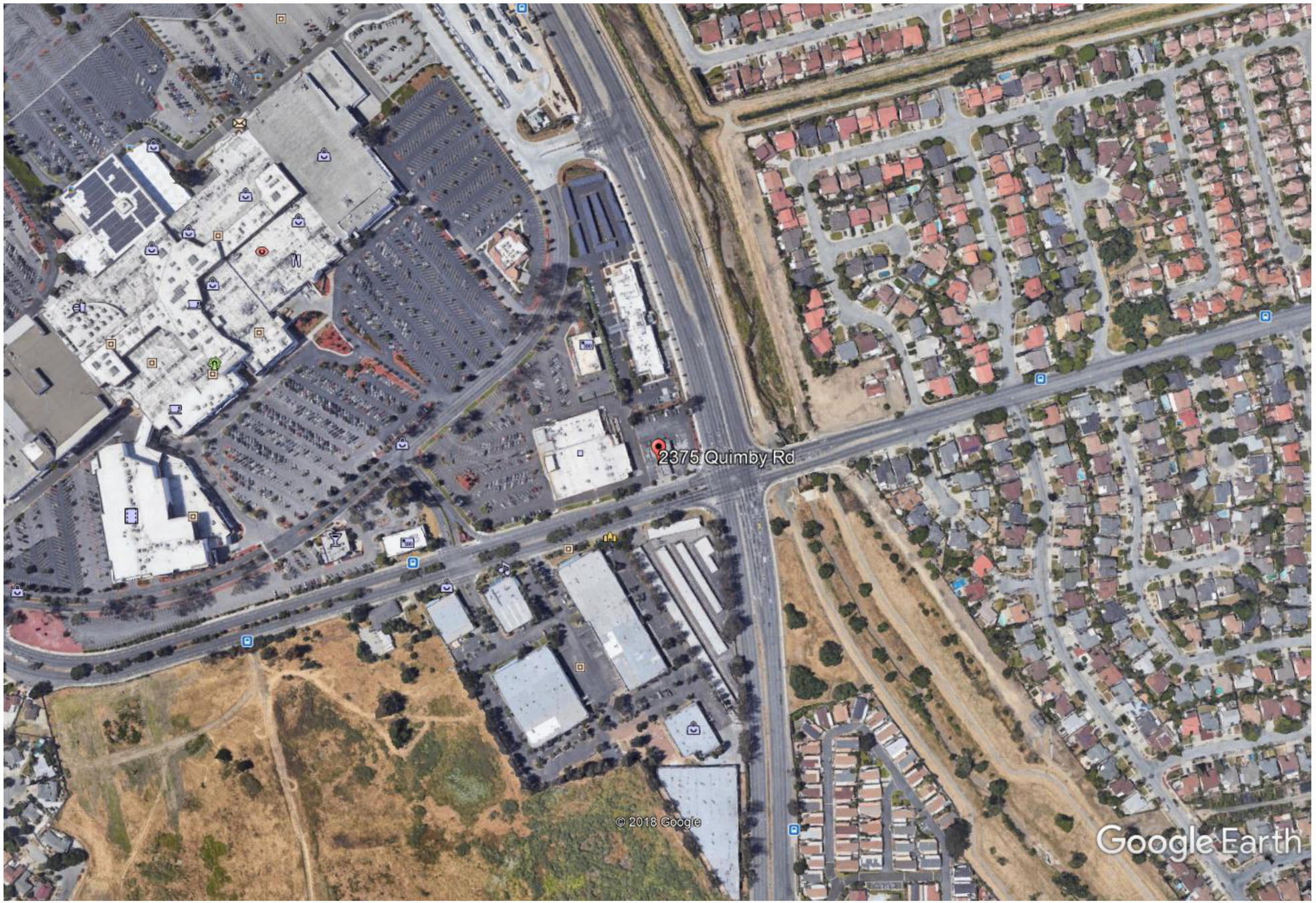



**FIGURE 1 - VICINITY MAP**

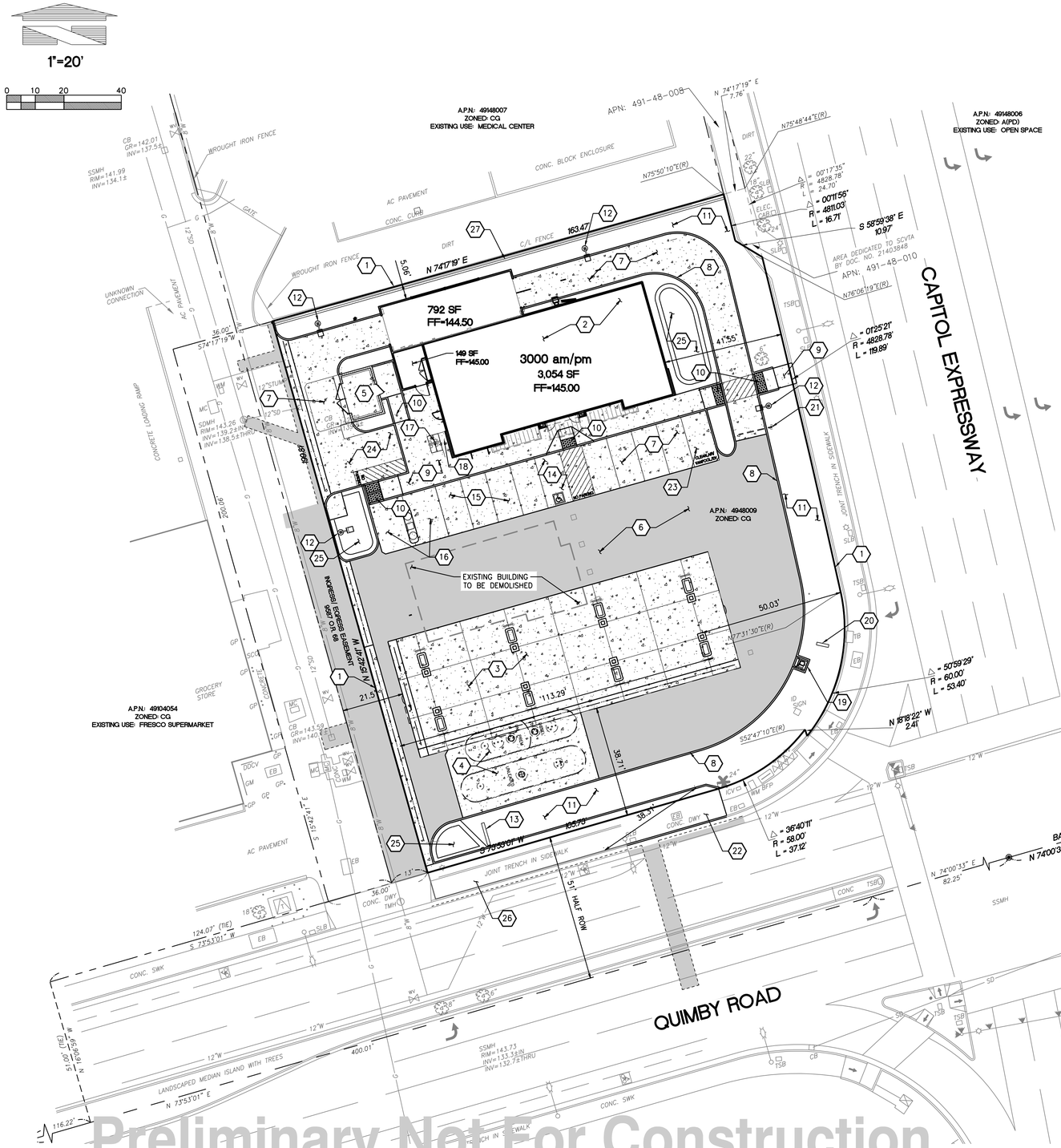
ARCO
2375 Quimby Road
San Jose, CA

| | |
|---|---|
| PROJECT NO: | BPSJCEQA18 |
| DATE: | 5/20/2018 |
| SCALE: | NTS |
| DRAWN BY: | TR |

anteagroup
505 14th Street, Suite 900
Oakland, CA 94612

Figure 2 - Site Plan

# SITE PLAN
FOR
# *SAN JOSE ARCO a m/p m*
SECTION 24, TOWNSHIP 7 SOUTH, RANGE 2 WEST M.D.M.
CITY OF SAN JOSE, SANTA CLARA COUNTY, CALIFORNIA




## KEYED NOTES:

1. EXISTING PROPERTY LINE, TYPICAL.
2. PROPOSED BUILDING; REFER TO ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION.
3. PROPOSED FUEL ISLAND WITH OVERHEAD CANOPY; REFER TO ARCHITECTURAL PLANS FOR ADDITIONAL INFORMATION.
4. PROPOSED UNDERGROUND STORAGE TANKS.
5. PROPOSED TRASH ENCLOSURE; REFER TO ARCHITECTURAL PLANS SHEET TE.1.
6. PROPOSED ASPHALT PAVING, TYPICAL.
7. PROPOSED CONCRETE PAVING, TYPICAL.
8. PROPOSED CONCRETE CURB, TYPICAL.
9. PROPOSED CONCRETE SIDEWALK, WIDTH VARIES, TYPICAL.
10. PROPOSED ADA ACCESSIBLE COMPLIANT CURB RAMP, TYPICAL.
11. PROPOSED LANDSCAPING AREA; REFER TO LANDSCAPE PLANS FOR ADDITIONAL INFORMATION, TYPICAL.
12. PROPOSED SIGHT LIGHTING, SEE LIGHTING PLAN.
13. PROPOSED DOUBLE-SIDED PRICE SIGN; REFER TO ARCHITECTURAL PLANS FOR ADDITIONAL INFORMATION.
14. PROPOSED SINGLE ADA ACCESSIBLE COMPLIANT PARKING SPACE (OFF-STREET PER CALTRANS STANDARD DETAIL A90A).
15. PROPOSED STANDARD PARKING SPACE, TYPICAL.
16. PROPOSED VACUUM PARKING SPACE, TYPICAL OF 2.
17. PROPOSED SHORT-TERM BICYCLE PARKING SPACE, TYPICAL OF 2.
18. PROPOSED LONG-TERM BICYCLE PARKING SPACE.
19. PROPOSED LOCATION OF AIR/WATER UNIT.
20. PROPOSED MONUMENT SIGN; REFER TO ARCHITECTURAL PLANS FOR ADDITIONAL INFORMATION, TYPICAL.
21. PROPOSED LOCATION OF CAR WASH CLEARANCE BAR; REFER TO ARCHITECTURAL PLANS FOR ADDITIONAL INFORMATION.
22. CONCRETE DRIVEWAY TO BE REPLACED BY 12' SIDEWALK PER CITY OF SAN JOSE STANDARDS.
23. PROPOSED LOCATION OF CLEAN AIR/VAN POOL/EV PARKING SPACE COMPLYING WITH SECTION 5.106.5.2 OF THE 2016 CALIFORNIA GREEN BUILDING STANDARDS.
24. PROPOSED LOCATION OF FUTURE VAN ACCESSIBLE ELECTRIC VEHICLE CHARGING STATION COMPLYING WITH ALL REQUIREMENTS OF SECTION 5.106.5.3 OF THE 2016 CALIFORNIA GREEN BUILDING STANDARDS CODE AND SECTION 11B-812 OF THE 2016 CALIFORNIA BUILDING CODE.
25. BIORETENTION BASIN W/ LINER PER CITY OF SAN JOSE STANDARD DETAIL 2.
26. NEW 12' SIDEWALK ALONG QUIMBY ROAD FRONTAGE PER CITY OF SAN JOSE STANDARDS.
27. NEW 8' SOUND WALL OFFSET 1' FROM PROPERTY LINE. SEE ARCHITECTURAL PLANS.

## ACCESSIBLE PATH OF TRAVEL NOTE:

WALKWAYS ALONG ACCESSIBLE ROUTES OF TRAVEL SHALL BE CONTINUOUSLY ACCESSIBLE, A MINIMUM 48" IN WIDTH, HAVE A MAXIMUM 1.5% CROSS SLOPE, AND SHALL HAVE RAMPS COMPLYING WITH ACCESSIBLE STANDARDS (SECTION 11B-405) WHERE NECESSARY TO CHANGE ELEVATION AT A LONGITUDINAL SLOPE EXCEEDING 5% (1:20). CURB RAMPS WHERE PROVIDED SHALL COMPLY WITH ACCESSIBLE REQUIREMENTS (SECTION 11B-406) AND BE PROVIDED WITH A CONTINUOUS 36" WIDE DETECTABLE WARNING STRIP MEETING ACCESSIBLE REQUIREMENTS (SECTION 11B-705) SHALL BE PLACED WHERE A WALK CROSSES OR ADJOINS A VEHICULAR WAY AND IS NOT SEPARATED BY A CURB, RAILING, OR OTHER ELEMENT MEETING ACCESSIBLE STANDARDS.



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DEVELOPMENT INFORMATION:
ARCO NTI
3000 am/pm
**FUEL CANOPY w/ 8 MPD's**
24'x48' CAR WASH

SITE ADDRESS:
2375 QUIMBY ROAD
SAN JOSE, CALIFORNIA
FACILITY # TBD

| | |
|---|---|
| DESIGNED BY: | ALLIANCE Z&DM: |
| CHECKED BY: JC | BP REPM: |
| DRAWN BY: ZJ | ALLIANCE PM: |
| VERSION: - - | PROJECT NO: 18024 |

DRAWING TITLE: SITE PLAN

SHEET NO: **C1.1**

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