

13127 GARVEY AVENUE

**INITIAL STUDY/
MITIGATED NEGATIVE DECLARATION**

Prepared for

CITY OF BALDWIN PARK
14403 East Pacific Avenue
Baldwin Park, CA 91706

Prepared by

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1.0 INTRODUCTION

This section provides an overview of the environmental review process for the proposed commercial building located at 13127 Garvey Avenue in the City of Baldwin Park (proposed project) and identifies the discretionary actions and approvals needed to implement the proposed project.

1.1 PROJECT OVERVIEW

The proposed project consists of the development of a two-story commercial building with 10,345 square feet of floor area at 13127 Garvey Avenue in the City of Baldwin Park. The proposed building would contain 2,000 square feet of office space, a 5,518-square-foot showroom, and 2,540 square feet of storage space. The project site encompasses four currently vacant parcels, three of which are contiguous. A total of 35 surface parking spaces would be provided on-site, and landscaping would be provided around the perimeter of the project site.

1.2 ENVIRONMENTAL CLEARANCE REQUIREMENTS

In accordance with the California Environmental Quality Act (CEQA) Guidelines (Public Resources Code [PRC] Sections 21000–21177) and pursuant to California Code of Regulations (CCR) Title 14, Section 15063, the City of Baldwin Park, Lead Agency, is required to undertake the preparation of an Initial Study (IS) to determine if the proposed project would have a significant environmental impact. For the proposed project to obtain an environmental clearance in the form of a Mitigated Negative Declaration (MND) in compliance with CEQA, any potential significant adverse effects must be mitigated to a level of insignificance.

The purpose of this document is to disclose and inform the City of Baldwin Park, public agencies, adjacent property owners, and the general public of the potential environmental effects resulting from the implementation of the proposed project. The environmental documentation and supporting analysis are subject to a public review period. Following review of any comments received, the City will consider these comments as part of the project's environmental review for consideration by the City's Planning Commission and City Council.

1.3 DISCRETIONARY ACTIONS AND APPROVALS

Discretionary actions include those local approvals or entitlements necessary to implement a project. The following discretionary actions require approval from the City's Planning Commission and City Council to implement the proposed project:

- Tentative Parcel Map to merge Assessor Parcel Numbers (APNs) 8556-022-037, 8556-022-038, and 8556-022-039 into one parcel.
- Zone variance to combine these three parcels into one with less than the minimum required lot depth within the Industrial Commercial (I-C) Zone.

1.4 PROJECT INFORMATION

Project Title: 13127 Garvey Avenue

Project Location: 13127 Garvey Avenue
Baldwin Park, California 91706

Lead Agency: City of Baldwin Park
Community Development Department
Planning Division
14403 East Pacific Avenue
Baldwin Park, CA 91706

Contact Person: Erika Ramirez, Associate Planner
eramirez@baldwinpark.com

1.5 ORGANIZATION OF INITIAL STUDY

This Draft Initial Study is organized into four sections:

1.0 Introduction. This section provides introductory information and an overview of the environmental review process for the proposed project.

2.0 Project Description. This section provides a detailed project description of the proposed project and the environmental setting.

3.0 Initial Study Checklist and Evaluation. This section contains the CEQA Initial Study Checklist showing the level of impact under each environmental impact category. It includes an assessment and discussion of the impacts associated with each subject area associated with the Initial Study Checklist. When the evaluation identifies potential significant effects, mitigation measures are provided to reduce such impacts to less-than-significant levels.

4.0 Persons and Sources Consulted. This section provides a list of City of Baldwin Park personnel and the consultant team members that participated in the preparation of this Initial Study.

2.0 PROJECT DESCRIPTION

This section provides a detailed project description of the proposed project and an estimated timeline for construction of the proposed project.

2.1 PROJECT LOCATION

The City of Baldwin Park lies in the eastern half of Los Angeles County approximately 14 miles east of downtown Los Angeles, with Interstate 10 (I-10) and Interstate 605 (I-605) freeways bisecting the southern and eastern side of the City. The project site is located at 13127 Garvey Avenue in the southwest portion of the City.

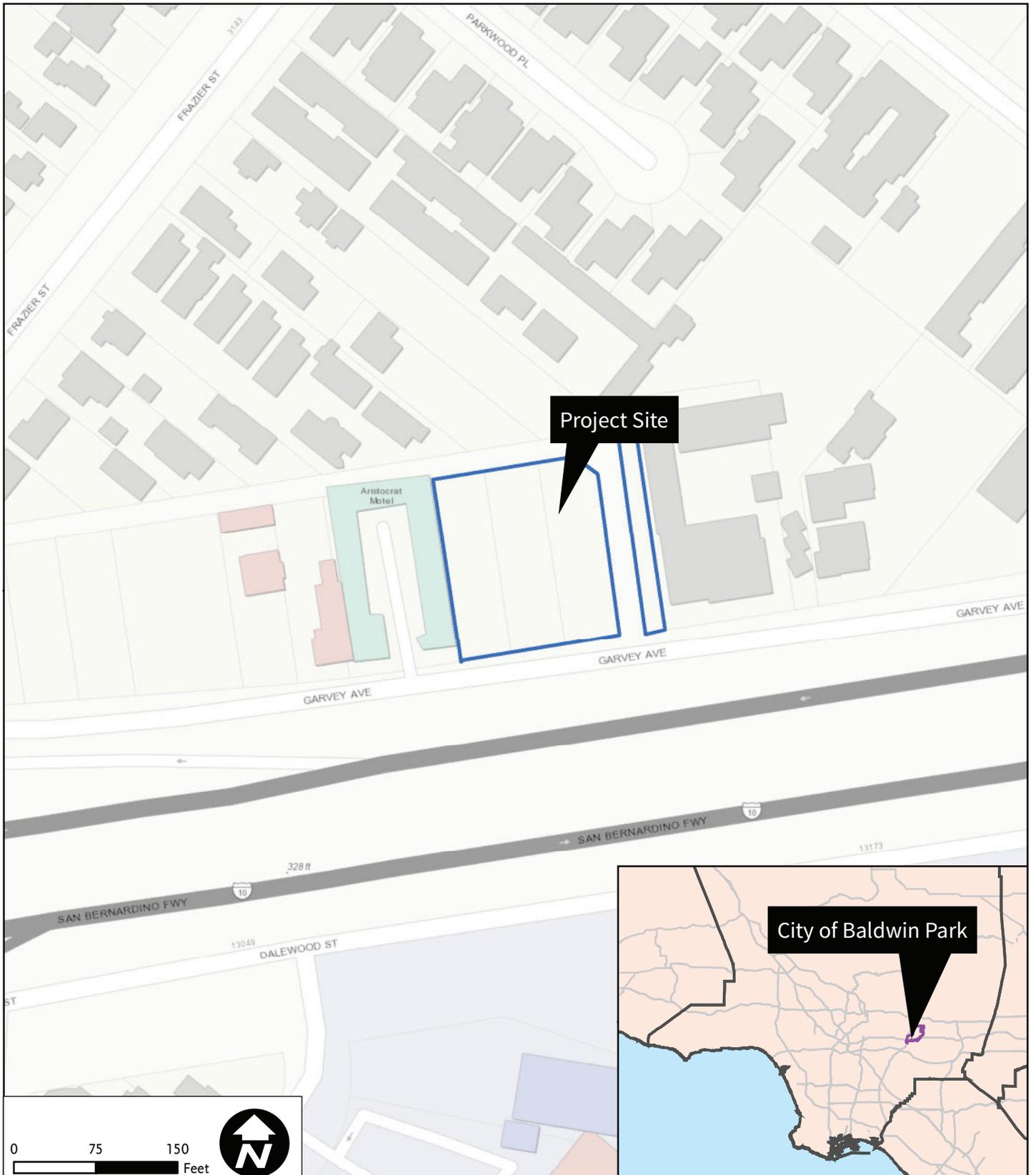
PROJECT SITE

The project site is 28,362 square feet and consists of four parcels, three of which are contiguous. All four parcels are currently vacant, although APN 8556-022-040 is developed as a parking lot. APNs 8556-022-037, 8556-022-038, and 8556-022-039 are contiguous, while APN 8556-022-040 is separated from the three parcels by an alleyway. The alleyway has access to Frazier Street at its western terminus and to Garvey Avenue at its southern terminus. A restaurant and apartment buildings previously occupied the project site. Access to the project site is provided by Garvey Avenue, Frazier Street, and Fairgrove Avenue. The location of the project site is depicted in **Figure 2-1**.

The Land Use Element of the City's 2020 General Plan indicates that the project site is within an area identified as a "2020 General Plan Focus Area". Focus Areas are considered by the City to be "key opportunity areas" for future commercial and industrial development. The Bess/Garvey/I-10 Focus Area includes most of the area along I-10 Freeway between Syracuse and Baldwin Park Boulevard. The primary goal of this Focus Area is to encourage the development of low-scale, low-intensity commercial and industrial uses oriented primarily toward serving the local resident and business populations. The project site is zoned for Industrial Commercial (IC) uses, which includes the development of industrial parks, office complexes and light manufacturing businesses.

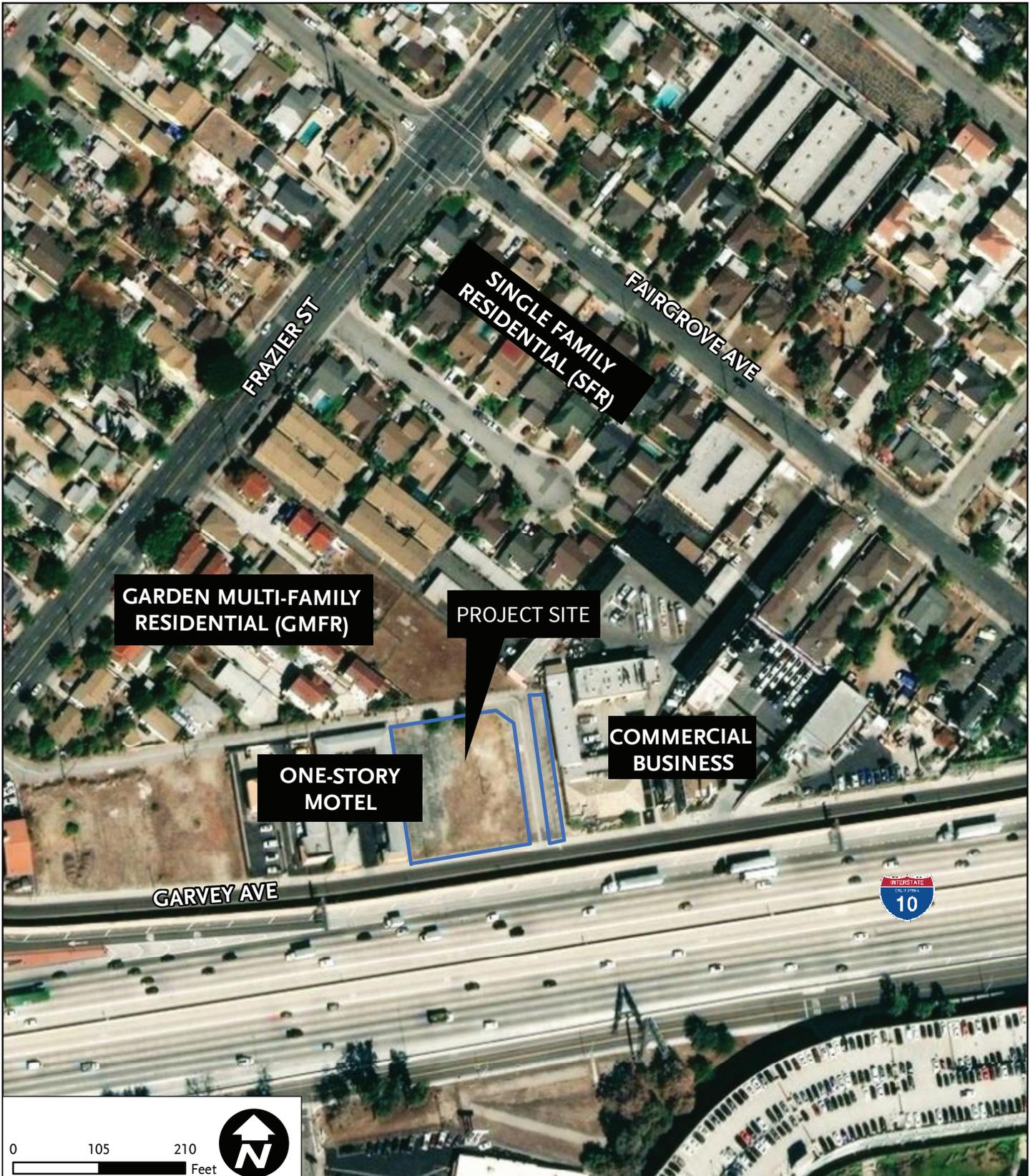
SURROUNDING AREA

According to the City's 2020 General Plan, the project site and adjacent properties along Garvey Avenue are designated for Commercial/Industrial (CI) and General Commercial (GC) land uses. The properties directly to the west of the project site are designated for Commercial/Industrial (CI) land uses and include a motel, a small commercial office, a collection of vacant parcels, and an auto repair shop. To the east are additional small commercial offices and storage warehouses designated for Commercial/Industrial (CI) and Public Facilities (PF) land uses. The northern boundary of the project site lies adjacent to properties designated for Garden Multi-Family Residential (GMFR) land uses, some of which are included in the area's Planned Development Overlay Zone. The project site is bounded to the south by I-10 Freeway, the other side of which is bordered by properties designated for General Commercial (GC) land uses. An aerial photograph depicting the project site of the surrounding land uses is presented in **Figure 2-2**.



Source: YW Rising Drafting, 2019; TAHA, 2019.

FIGURE 2-1
PROJECT LOCATION



Source: YW Rising Drafting, 2019; TAHA, 2019.

FIGURE 2-2
 SURROUNDING LAND USE

2.2 DESCRIPTION OF THE PROPOSED PROJECT

The proposed project consists of the construction of a two-story, concrete, tilt-up commercial building with 10,345 square feet of floor area. The proposed building would include 2,000 square feet of office space, a 5,518-square-foot showroom, and 2,540 square feet of storage. A total of 35 surface parking spaces would be provided on-site. The site plan is presented in **Figure 2-3**.

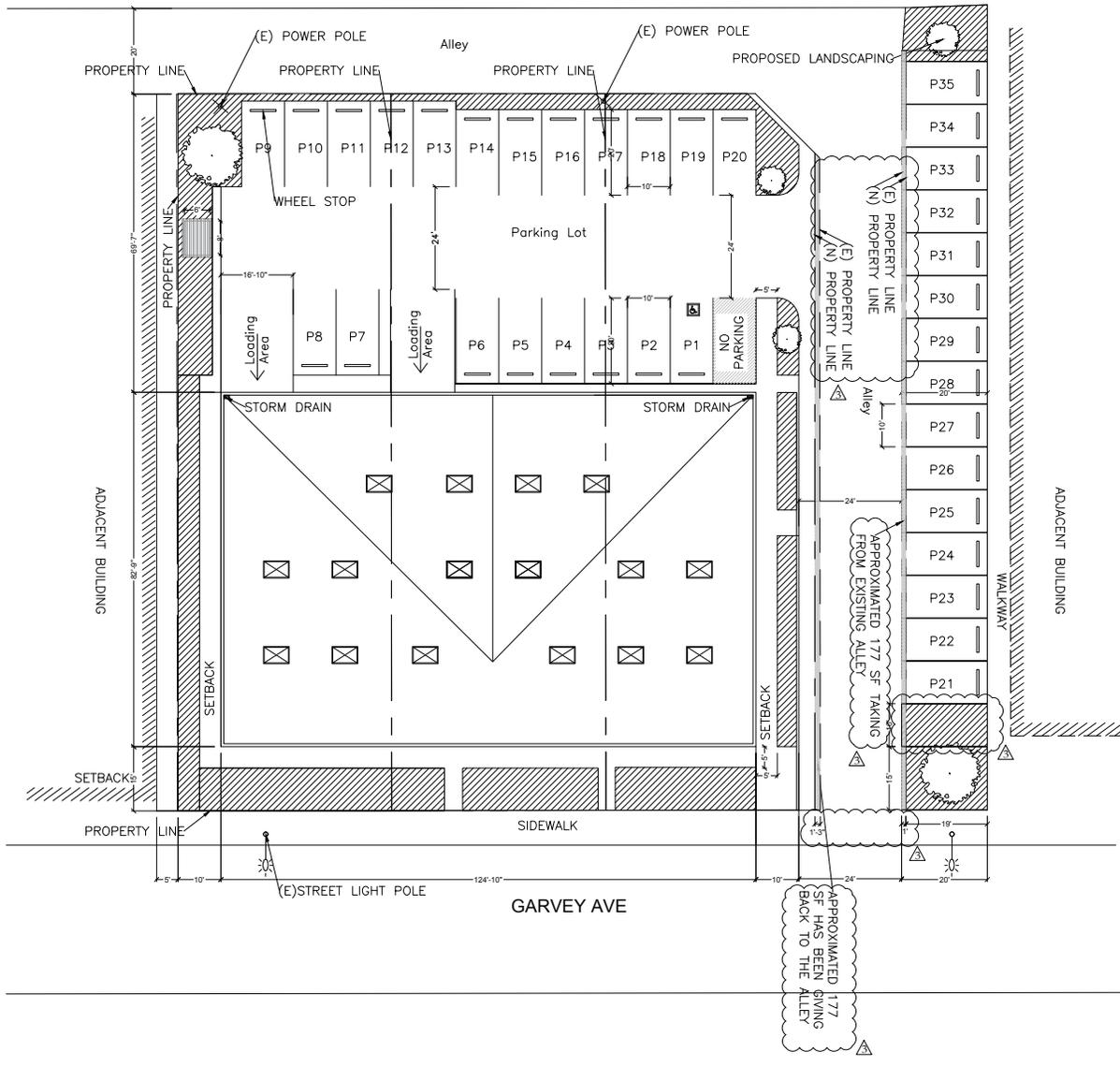
Vehicular access to the project site would be from Garvey Avenue or via the alleyway that starts along Frazier Street and ends at Garvey Avenue. Parking and loading access would be provided via a single driveway connecting to the existing alleyway at the east side of the site. Twenty parking spaces would be provided behind the proposed building, including one dedicated Americans with Disabilities Act (ADA) parking space, and an additional 15 spaces provided on the non-contiguous parcel (APN 8556-022-040). The parking spaces would be 10 feet by 20, with a minimum parking lot aisle of 24 feet. Two loading areas between 10 and 17 feet wide and 20 feet long would be provided behind the proposed building. Pedestrian access to the proposed building would be from Garvey Avenue, with entrances on the building's eastern facing wall via the pedestrian pathway that runs from the parking lot behind the facility to Garvey Avenue.

The proposed concrete building would be 34 feet tall and would be painted in variety of colors, as shown in the elevation drawings presented in **Figure 2-4**. Project design would incorporate high efficiency lighting fixtures to reduce lighting energy by 70 percent and water conservation strategies to reduce water usage by 45 percent. Other features of the proposed project include 3,126 square feet of landscaped buffers around the perimeter of project site, of which 85 percent would be covered by low water use plants. The two existing trees on-site would be removed and replaced with three drought-tolerant trees. The landscape plan is presented in **Figure 2-5**.

It is anticipated that the proposed project would result in seven full-time employees and one part-time employee.

2.3 PROJECT CONSTRUCTION

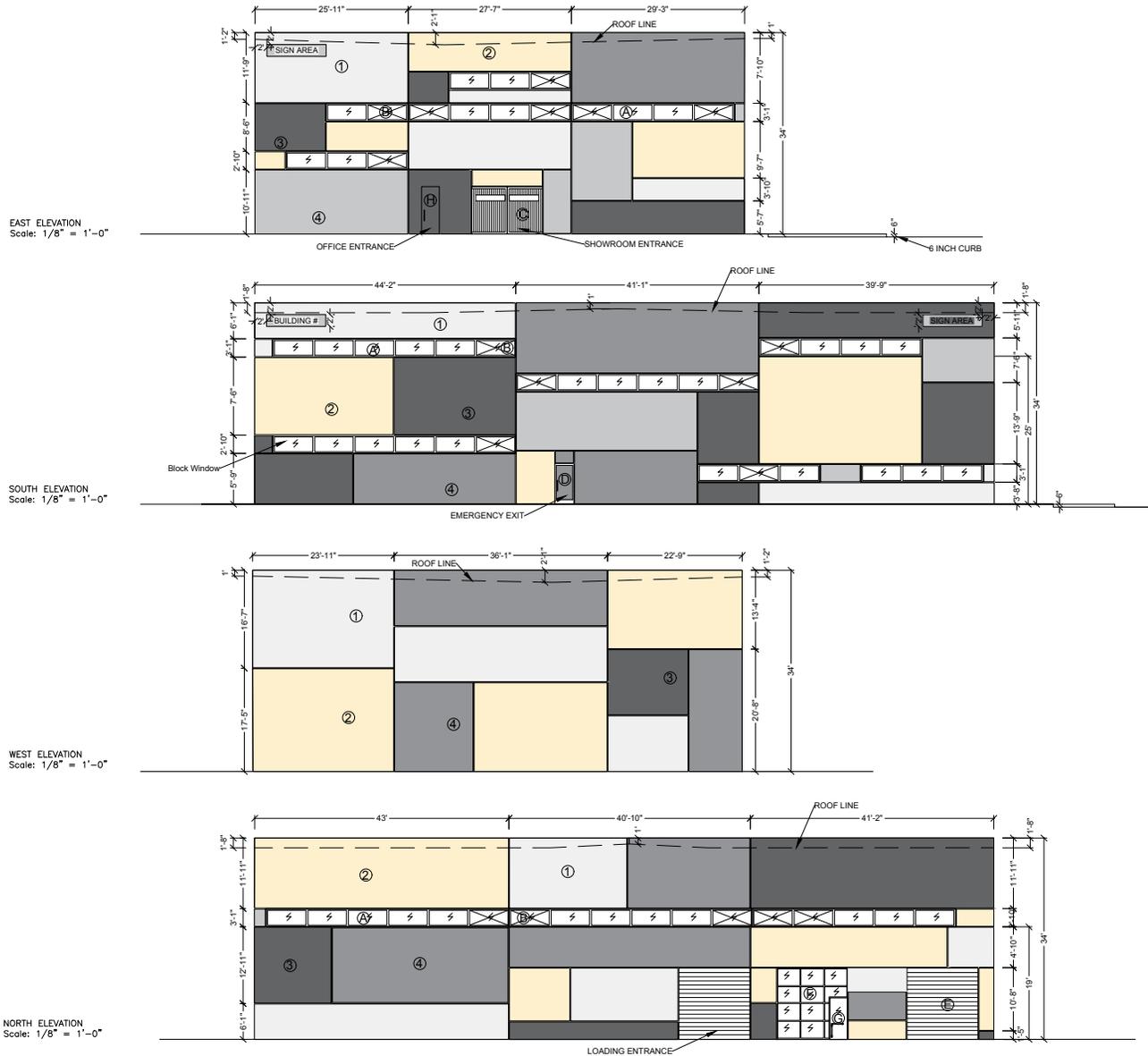
Construction of the proposed project is anticipated to begin in December 2019 and last approximately nine months. Construction activities would include one day of demolition, one week for site excavation and grading, and eight months of building construction. No import of soil would be required; however, 32 cubic yards of material and soil would be excavated and exported from the project site. Construction activities would require the use of construction equipment such as a concrete saw, backhoes, a dozer, a crane, forklifts, pavers, and rollers. Construction would occur five days a week. In accordance with the Baldwin Park Municipal Code (BPMC) Section 130.37, construction crews would restrict their activities to between 7:00 a.m. and 7:00 p.m. on weekdays. Operation of the proposed project is expected to commence in November 2020.



SITE PLAN / ROOF PLAN
Scale: 1/16" = 1'-0"

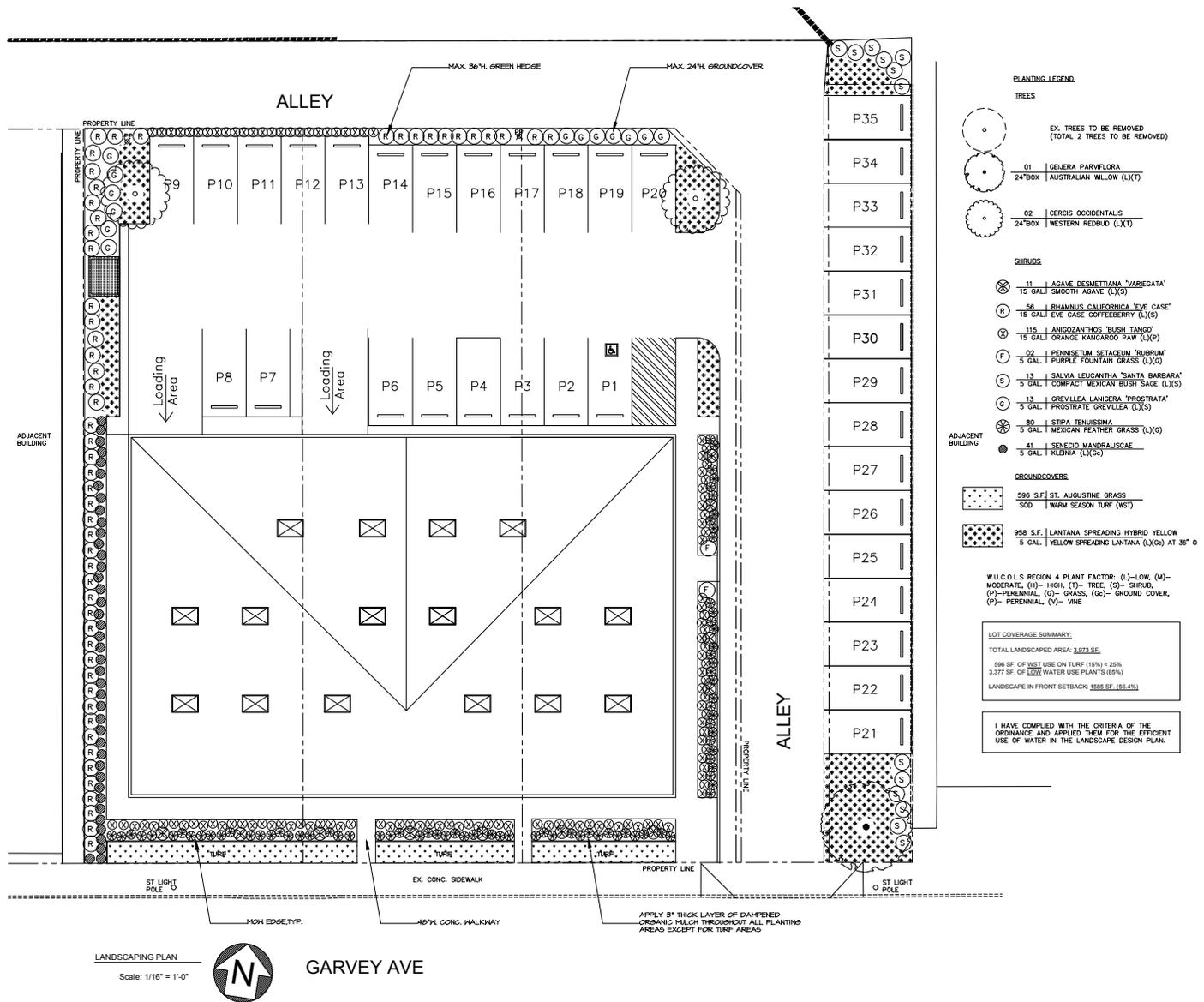


Source: YW Rising Drafting, 2019; TAHA, 2019.



- ON SITE PRECAST TILT UP CONCRETE COLOR ID
- ① - CONCRETE PAINT COLOR: SILVER
 - ② - CONCRETE PAINT COLOR: NAVAJO WHITE (DEC772)
 - ③ - CONCRETE PAINT COLOR: PIKE LAKE (DE6320)
 - ④ - CONCRETE PAINT COLOR: FOIL (DE6360)
- ⊕ - WINDOW OPENING
 - ⊖ - WINDOW FACADE WITHOUT OPENING
 - ⊗ - ENTRY SLIDING DOOR
 - ⊙ - EMERGENCY EXIT
 - ⊚ - ROLL UP DOOR
 - ⊛ - FIXED WINDOWS
 - ⊜ - GLASS DOOR
 - ⊝ - OFFICE ENTRY

Source: YW Rising Drafting, 2019; TAHA, 2019.



Source: YW Rising Drafting, 2019; TAHA, 2019.

taha environmental planners
13127 Garvey Avenue
Initial Study/Mitigated Negative Declaration
TAHA 2019-048

CITY OF BALDWIN PARK

FIGURE 2-5
LANDSCAPING PLAN

3.0 INITIAL STUDY CHECKLIST AND EVALUATION

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

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

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

DETERMINATION: (To be completed by the Lead Agency):

On the basis of this initial evaluation:

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

Signature

Date

Printed Name

For

	Potentially Significant Impact	Less-Than-Significant Impact with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
3.1 AESTHETICS - Except as provided in Public Resources Code Section 21099, would the project:				
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

a) **No Impact.** A significant impact would occur if the proposed project would have a substantial adverse effect on scenic vista. The term “scenic vista” refers to views of focal points or panoramic views of broader geographic areas that are of visual interest. Focal points may include notable objects, buildings, or settings. Panoramic views are generally wide and extend into the distance. The City of Baldwin Park 2020 General Plan does not identify any scenic vistas or other scenic resources in the City. The Angeles National Forest and San Gabriel Mountains are scenic assets located approximately eight miles north of the project site and can be viewed along Garvey Avenue. However, views of these scenic assets are limited due to intervening buildings and existing landscaping. Nonetheless, the proposed two-story building would not obstruct any scenic vistas. Therefore, no impact would occur.

b) **No Impact.** A significant impact would occur if the proposed project would substantially damage scenic resources within a State Scenic Highway. There are no officially designated State Scenic Highways in the vicinity of the project site,¹ nor are there any known scenic resources, such as trees, rock outcroppings, or historic buildings that are adjacent to or within proximity of the project site. The project site is not within the viewshed of any scenic highway. Therefore, no impact would occur.

c) **No Impact.** A significant impact would occur if the proposed project substantially degraded the existing visual character or quality of public views of the site and its surroundings. The project site is located within an urbanized area as defined by Section 21071 of the CEQA Guidelines. According to the Land Use Element of the City’s General Plan, the project site is designated Commercial/Industrial (CI) and is zoned for Industrial Commercial (I-C). Commercial/Industrial (CI) land uses exist adjacent to the project site along Garvey Avenue, while most of the land uses directly north of the project site are Garden Multi-Family Residential (GMFR) uses.

The proposed two-story, 34 feet tall commercial building with surface parking, would not conflict with the existing visual character of the area or with the Urban Design Element of the City’s General Plan. The proposed project would provide landscaping features that would enhance the visual character of the area, including various species of trees around the perimeter of the site. The proposed project would also be designed in accordance with the BPMC and would comply with

¹California Department of Transportation, *The California Scenic Highway Program*, <https://dot.ca.gov/dist3/departments/mtce/scenic.htm>, accessed July 25, 2019.

the applicable zoning regulations that govern scenic quality. Additionally, the proposed project would not result in the removal of open space, recreational areas, or other undeveloped lands of scenic value. Therefore, no impact would occur.

- d) Less-Than-Significant Impact.** A significant impact would occur if the proposed project created a new source of substantial light or glare which would adversely affect day or nighttime views in the area. While construction would not occur during nighttime hours, construction-related nighttime lighting could be used at the construction site for safety and security purposes. However, all temporary construction lighting would be set up and removed upon completion of construction. Additionally, the project area is an urbanized setting characterized by a moderate amount of nighttime lighting, so project construction lighting would not adversely affect daytime or nighttime views in the area, and construction lighting impacts would be less than significant.

As part of operations, the proposed project would introduce new sources of nighttime light in the area (such as exterior building illumination); however, these sources are not expected to be significant and would be designed in accordance with the BPMC to reduce lighting impacts on adjacent properties. Daytime glare is most often associated with mid- to high-rise buildings with exterior façades comprised largely or entirely of highly reflective glass or other reflective materials from which the sun can reflect, particularly following sunrise and prior to sunset. The proposed building, which would be two-stories, or 34 feet in height, is considered a low-rise building would be finished in neutral tone colors and would include non-reflective glass on all four sides of the structure. as shown in the elevation drawings presented in **Figure 2-4**. In addition, as shown in the landscape plan presented in **Figure 2-5**, the proposed building would be buffered by landscaping along the perimeter of the project site to reduce the amount of glare that could be reflected. Therefore, the proposed project would not generate excessive lighting or glare that would adversely affect daytime views in the area, and operational lighting impacts would be less than significant.

	Potentially Significant Impact	Less-Than-Significant Impact with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
3.2 AGRICULTURE AND FORESTRY RESOURCES - In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state’s inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act Contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
a-e) No Impact. According to the Baldwin Park 2020 General Plan, the City contains no areas that are currently zoned, designated, or used for agricultural or forestry activities, nor does it contain any Prime Farmland, Unique Farmland, or Farmland of Statewide Significance. ² Due to its urban setting, the project site and its surroundings are not included in the Farmland Mapping and Monitoring Program of the California Department of Conservation. The project site is not zoned for agricultural use and is not under a Williamson Act Contract. ³ In addition, there are no areas of forestland as defined in Public Resources Code Section 12220(g) or timberland as defined in Public Resources Code Section 4526 within the City. The proposed project is located in a developed, urbanized area, and surrounded primarily by commercial and residential uses. The proposed project would not change the existing environment in a manner that would result in the conversion of farmland or forestland to other kinds of land uses. Therefore, no impact would occur.				

²California Department of Conservation, Farmland Mapping and Monitoring Program, <https://www.conservation.ca.gov/dlrp/fmmp>, accessed August 5, 2019.

³California Department of Conservation, *Williamson Act Program*, <https://www.conservation.ca.gov/dlrp/wa>, accessed September 2019.

	Potentially Significant Impact	Less-Than-Significant Impact with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
3.3 AIR QUALITY - Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Air pollutant emissions that would result from construction and operation of the proposed project are addressed separately for each impact criterion. The air quality impact assessment was conducted in accordance with guidance and methodologies propagated by the South Coast Air Quality Management District (SCAQMD), which is charged with regional air quality jurisdiction for the South Coast Air Basin (SCAB). The primary guidance is contained in the SCAQMD *CEQA Air Quality Handbook*, which was published in 1993. Updates to the SCAQMD CEQA guidance are posted on the SCAQMD website.⁴

Air pollutant emissions that would result from construction and operation of the proposed project are addressed for each impact criterion. Some land uses are considered more sensitive to changes in air quality than others, depending on the population groups and the activities involved. The California Air Resources Board (CARB) has identified the following groups who are most likely to be affected by air pollution: children less than 14 years of age, the elderly over 65 years of age, athletes, and people with cardiovascular and chronic respiratory diseases. According to SCAQMD, sensitive receptors include residences, schools, playgrounds, childcare centers, athletic facilities, long-term health care facilities, rehabilitation centers, convalescent centers, and retirement homes.

SCAQMD has established 500 meters or 1,640 feet, as the distance for assessing localized air quality impacts. The following sensitive receptors are located within 500 meters of the proposed project site:

Residences

- Residences located approximately 40 feet north of the project site across the alley
- Residences located approximately 170 north of the project site along Frazier Street
- Residences located approximately 250 feet northeast of the project site along Parkwood Place
- Residences located approximately 450 feet west of the project site along Frazier Street
- Residences located approximately 500 feet northeast of the project site along Fairgrove Avenue

Hospitals

- Kaiser Permanente Baldwin Park Medical Center: 1011 Baldwin Park Boulevard. Approximately 500 feet south of the project site.

Schools

- Tracy Elementary School: 13350 Tracy Street. Approximately 1,440 feet northeast of the project site.

⁴SCAQMD, *Air Quality Analysis Guidance Handbook*, <http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook>, accessed October 16, 2019.

Open Space/Recreational

- Baldwin Park Community Garden: 13067 Bess Avenue. Approximately 580 feet south of the project site.

- a) **Less-Than-Significant Impact.** The applicable air quality plan is the SCAQMD 2016 Air Quality Management Plan (AQMP), which is based on regional growth population and employment projections provided in the Southern California Association of Governments (SCAG) 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). The 2016 AQMP provides policies and control measures that will reduce emissions to attain both state and federal ambient air quality standards by their applicable deadlines. Environmental review of individual projects within the SCAB must demonstrate that daily construction and operational emissions thresholds, as established by SCAQMD, would not be exceeded. The environmental review must also demonstrate that individual projects would not increase the number or severity of existing air quality violations.

The SCAQMD CEQA Air Quality Handbook identifies two key indicators of consistency with the AQMP: 1) whether the project would 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 air quality plan; and 2) whether the project would exceed the forecasted growth incorporated into the AQMP via the RTP/SCS. The SCAQMD has developed regionally specific air quality significance thresholds to assess potential impacts that may result from construction and operation of projects. Daily emissions of volatile organic compounds (VOC), nitrogen oxides (NO_x), carbon monoxide (CO), sulfur oxides (SO_x), and respirable particulate matter less than 10 microns in diameter (PM₁₀) and fine particulate matter less than 2.5 microns in diameter (PM_{2.5}) should be quantified and assessed on both regional and localized scales, in accordance with SCAQMD methodology.

Construction

Construction of the proposed project has the potential to create air quality impacts through the use of heavy-duty construction equipment and through vehicle trips generated by construction workers and haul trucks traveling to and from the project site. Fugitive dust emissions would primarily result from site preparation (e.g., demolition and grading) activities. NO_x emissions would predominantly result from the use of construction equipment and haul truck trips. The assessment of construction air quality impacts considers all of these emissions sources. Construction emissions can vary substantially from day to day, depending on the level of activity, the specific type of operation and, for dust, the prevailing weather conditions.

It is mandatory for all construction projects in the SCAB to comply with SCAQMD Rule 403 for Fugitive Dust. Rule 403 control requirements include measures to prevent the generation of visible dust plumes. Measures include, but are not limited to, applying soil binders to uncovered areas, reestablishing ground cover as quickly as possible, utilizing a wheel washing system or other control measures to remove bulk material from tires and vehicle undercarriages before vehicles exit the project site, and maintaining effective cover over exposed areas. Compliance with Rule 403 would reduce regional PM_{2.5} and PM₁₀ emissions associated with construction activities by approximately 61 percent.

The air quality analysis conducted for the proposed project is consistent with the methods described in the SCAQMD CEQA Air Quality Handbook (1993 edition), as well as the updates to the CEQA Air Quality Handbook provided on the SCAQMD website. The SCAQMD recommends the use of the California Emissions Estimator Model (CalEEMod, version 2016.3.2) as a tool for quantifying emissions of air pollutants that will be generated by constructing and operating development

projects. Project-specific information was provided describing the schedule of construction activities and the equipment inventory required.

Construction is expected to begin in December 2019 and take approximately nine months. Construction activities would include one day of demolition, one week for site excavation and grading, and eight months of building construction. No import of soil would be required; however, 32 cubic yards of material and soil will be excavated and exported. Construction activities would require construction equipment such as a concrete saw, backhoes, a dozer, a crane, forklifts, pavers, and rollers. Maximum daily emissions for each activity were estimated based on heavy duty equipment use and fugitive dust (on-site) and vehicular travel to and from the project site (off-site). **Table 3-1** shows the maximum unmitigated daily regional emissions for activity. Maximum daily emissions of all air pollutants would remain below all applicable regional SCAQMD thresholds. In addition to maximum daily regional emissions, maximum localized (on-site) emissions were quantified for each construction activity.

TABLE 3-1: ESTIMATED REGIONAL CONSTRUCTION EMISSIONS – UNMITIGATED						
Construction Activity	Maximum Daily Emissions (Pounds Per Day)					
	VOC	NO_x	CO	SO_x	PM₁₀	PM_{2.5}
DEMOLITION						
On-Site Emissions	1.0	8.6	7.7	<0.1	0.9	0.6
Off-Site Emissions	0.1	1.3	0.7	<0.1	0.2	0.1
Total	1.0	9.9	8.4	<0.1	1.0	0.6
GRADING						
On-Site Emissions	1.0	8.6	7.7	<0.1	1.0	0.7
Off-Site Emissions	0.1	<0.1	0.4	<0.1	0.1	<0.1
Total	1.0	8.6	8.1	<0.1	1.2	0.7
BUILDING CONSTRUCTION						
On-Site Emissions	0.7	8.7	19.2	<0.1	0.5	0.4
Off-Site Emissions	0.1	0.5	1.0	<0.1	0.3	0.1
Total	0.9	9.3	20.2	<0.1	0.7	0.5
PAVING						
On-Site Emissions	0.9	7.2	7.1	<0.1	0.4	0.4
Off-Site Emissions	0.1	0.1	0.7	<0.1	0.2	0.1
Total	1.0	7.3	7.8	<0.1	0.6	0.4
ARCHITECTURAL COATING						
On-Site Emissions	19.7	1.7	1.8	<0.1	0.1	0.1
Off-Site Emissions	<0.1	<0.1	0.1	<0.1	<0.1	<0.1
Total	19.7	1.7	1.9	<0.1	0.1	0.1
BUILDING CONSTRUCTION + PAVING + ARCHITECTURAL COATING OVERLAP						
On-Site Emissions	21.4	17.6	28.1	<0.1	1.0	0.9
Off-Site Emissions	0.2	0.6	1.8	<0.1	0.5	0.1
Total	21.6	18.3	29.9	<0.1	1.4	1.0
REGIONAL ANALYSIS						
Maximum Daily Emissions	21.6	18.3	29.9	<0.1	1.4	1.0
Regional Significance Threshold	75	100	550	150	150	55
Exceed Threshold?	No	No	No	No	No	No
Emissions modeling files can be found in Appendix A . SOURCE: TAHA, 2019.						

Table 3-2 presents the results of emissions modeling from on-site construction sources. The LSTs selected for comparison values are for a 1-acre construction site in Sensitive Receptor Area 9 with a sensitive receptor within 25 meters. Maximum on-site emissions during project construction would not exceed the applicable LST values. The proposed project would result in a less-than-significant impact related to consistency with the AQMP and construction emissions.

TABLE 3-2: ESTIMATED LOCALIZED CONSTRUCTION EMISSIONS – UNMITIGATED				
Construction Activity	Maximum Daily On-Site Emissions (Pounds Per Day)			
	NO_x	CO	PM₁₀	PM_{2.5}
EMISSIONS ANALYSIS				
Demolition	9.9	8.4	1.0	0.6
Grading	8.6	8.1	1.2	0.7
Building Construction + Paving + Architectural Coating	17.6	28.1	1.0	0.9
IMPACT ANALYSIS				
Maximum Daily Localized Emissions	17.6	28.1	1.2	0.9
Localized Significance Threshold	89	623	5	3
Exceed Threshold?	No	No	No	No
Emissions modeling files can be found in Appendix A . SOURCE: TAHA, 2019.				

Operation

The proposed project would generate regional operational emissions from vehicle trips, area sources, and energy use. The proposed land uses would generate 102 daily trips. It is likely that the proposed project would include forklifts powered with natural gas or electricity. Emissions would be negligible and are not induced in the table. CalEEMod program generates estimates of emissions from energy use based on the land use type and size of the project. **Table 3-3** presents the CalEEMod results for operation of the proposed project. Future occupation of the proposed project would not result in daily emissions that exceed any applicable SCAQMD thresholds.

TABLE 3-3: ESTIMATED DAILY OPERATIONAL EMISSIONS						
Operational Activity	Maximum Daily Emissions (Pounds Per Day)					
	VOC	NO_x	CO	SO_x	PM₁₀	PM_{2.5}
EMISSIONS ANALYSIS						
Area Sources	0.2	<0.1	<0.1	<0.1	<0.1	<0.1
Energy Sources	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Mobile Sources	0.2	0.7	1.7	<0.1	0.4	0.1
IMPACT ANALYSIS						
Daily Operational Emissions	0.4	0.7	1.7	<0.1	0.4	0.1
Regional Threshold	55	55	550	150	150	55
Exceed Threshold?	No	No	No	No	No	No
Emissions modeling files can be found in Appendix A . SOURCE: TAHA, 2019.						

The second consistency criterion requires that the proposed project not exceed the assumptions in the AQMP. It is anticipated that this commercial building would create 7 full-time jobs and 1 part-time job. The proposed small-scale infill development of this size has no potential to interfere with growth projections, which are orders of magnitude greater than the population, housing, and employment numbers associated with the proposed project. Therefore, the proposed project would have no potential to result in growth that would exceed the projections incorporated into the AQMP.

b) **Less-Than-Significant Impact.** The SCAB is designated as nonattainment of the California Ambient Air Quality Standards and National Ambient Air Quality Standards for O₃, PM₁₀, and/or PM_{2.5}. Therefore, there is an ongoing regional cumulative impact associated with these air pollutants. Considering the existing environmental conditions, the SCAQMD propagated guidance that an individual project can emit allowable quantities of these pollutants on a regional scale without significantly contributing to the cumulative impacts. As discussed above, air pollutant emissions associated with construction of the proposed project would not exceed any applicable SCAQMD air quality thresholds of significance. The SCAQMD does not consider individual project emissions of lesser magnitude than the mass daily thresholds to be cumulatively considerable. Therefore, the proposed project would not result in a cumulatively considerable net increase of nonattainment pollutants.

c) **Less-Than-Significant Impact**

Construction

With regards to emissions of air toxics, carcinogenic risks, and non-carcinogenic hazards, the use of heavy-duty construction equipment and haul trucks during construction activities would release diesel PM to the atmosphere through exhaust emissions. Diesel PM is a known carcinogen, and extended exposure to elevated concentrations of diesel PM can increase excess cancer risks in individuals. However, carcinogenic risks are typically assessed over timescales of several years to decades, as the carcinogenic dose response is cumulative in nature. Short term exposures to diesel PM would have to involve extremely high concentrations in order to exceed the SCAQMD air quality significance threshold of 10 excess cancers per million. Over the course of construction activities, average diesel PM emissions from on-site equipment would be approximately 0.9 pounds per day. It is unlikely that diesel PM concentrations would be of any public health concern during the nine-month construction period, and diesel PM emissions would cease upon completion of construction activities. Therefore, the proposed project would result in a less-than-significant impact related to construction TAC emissions.

Operation

The proposed project consists of the construction of a two-story, concrete, tilt-up commercial building with 10,345 square feet of floor area. The proposed building would include 2,000 square feet of office space, a 5,518-square-foot showroom, and 2,540 square feet of storage. The proposed project is not a warehouse that would generate a substantial number of heavy-duty truck trips within the region. It is not anticipated that the proposed project would generate more truck trips than a typical commercial development and no other sources of operational air toxic emissions have been identified at the project site. It is likely that the proposed project would include forklifts powered with natural gas or electricity, which would not generate air toxic emissions. Therefore, the proposed project would result in a less-than-significant impact related to operational TAC emissions.

d) **Less-Than-Significant Impact**

Construction

Odors are the only potential construction emissions other than the sources addressed above. Potential sources that may produce objectionable odors during construction activities include equipment exhaust, application of asphalt and architectural coatings, and other interior and exterior finishes. Odors from these sources would be localized and generally confined to the immediate area surrounding the project site and would be temporary in nature and would not persist beyond the termination of construction activities. The proposed project would utilize typical construction techniques, and the odors would be typical of most construction sites and temporary in nature. In addition, as construction-related emissions dissipate away from the construction area, the odors associated with these emissions would also decrease and would be quickly diluted. Therefore, the proposed project would result in a less-than-significant impact related to construction odors.

Operation

Odors are the only potential operational emissions other than the sources addressed above. Land uses and industrial operations that are associated with odor complaints include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting, refineries, landfills, dairies and fiberglass molding.⁵ The proposed project structure would contain a commercial warehouse that would produce some odors associated with diesel-fueled loading trucks on- and off-loading from the site. The operations would comply with SCAQMD Rule 402, which would prohibit any air quality discharge that would be a nuisance or pose any harm to individuals of the public. On-site trash receptacles would have the potential to create adverse odors. The facility would mitigate associated trash odors by properly storing and disposing of trash in compliance with the BPMC. Therefore, the proposed project would result in a less-than-significant impact related to operations odors.

⁵SCAQMD, *CEQA Air Quality Handbook*, 1993.

	Potentially Significant Impact	Less-Than-Significant Impact with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
3.4 BIOLOGICAL RESOURCES - Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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 US Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

a) **Less-Than-Significant Impact.** A significant impact would occur if the proposed project would have a substantial adverse effect on any species identified as a candidate, sensitive, or special status species. The City of Baldwin Park is a built out urbanized area with limited to no natural habitat for special status species. The project site is currently vacant; however, the site was previously developed and is in an urbanized area of the City. Plant life on the project site is limited to two lemon trees (*Citrus limon*) and grasses. A search of the California Department of Fish and Wildlife (CDFW), California Natural Diversity Database indicates the project site is located in an area where sightings of Brand's Star Phacelia (*Phacelia stellaris*), a rare plant native to the area, and the Western Yellow-Billed Cuckoo (*Coccyzus americanus occidentalis*), identified as Endangered by CDFW and Threatened by the US Fish and Wildlife Service, have been recorded.⁶ However, the Western Yellow-Billed Cuckoo's requires large blocks of riparian habitat, preferably dense riparian thickets near slow-moving water sources. Given that the project site has been previously developed and does not contain any natural habitat, it is unlikely that the proposed project would have a substantial adverse effect on these species. Therefore, impacts would be less than significant.

⁶California Department of Fish and Wildlife, *California Natural Diversity Database 5 in BIOS, Baldwin Park Quadrangle*, <https://apps.wildlife.ca.gov/bios/?al=ds85>, accessed July 25, 2019.

- b) **No Impact.** A significant impact would occur if the proposed project would have a substantial adverse effect on any riparian habitat or other sensitive natural community. As discussed above, the project site is currently vacant; however, the site was previously developed and is in an urbanized area. There is no riparian habitat or other natural communities on the project site. Therefore, the proposed project would not have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in any local or regional plans, policies regulations or by the CDFW or by the U.S. Fish and Wildlife Service, and no impact would occur.
- c) **No Impact.** A significant impact would occur if state or federally protected wetlands would be modified or removed as a result of the proposed project. The proposed project would not have any effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means. The project site is currently vacant; however, the project site was previously developed and is in an urbanized area. There are no wetlands located in Baldwin Park as identified in the City's 2020 General Plan. Therefore, no impact would occur.
- d) **Less-Than-Significant Impact with Mitigation Incorporated.** A significant impact would occur if the proposed project would interfere with, or remove access to, a migratory wildlife corridor or impede use of native wildlife nursery sites. Due to the urbanized nature of the project site, the absence of a major water body, and the limited number of trees, the project site neither supports habitat for native resident or migratory species, nor contains native nurseries. If migratory birds were to traverse the project site, the birds would likely utilize the two lemon trees on site, which may potentially provide nesting sites for migratory birds. These two trees would be removed and replaced with three new trees as part of the proposed project, which could potentially affect migratory birds.

Migratory nongame native bird species are protected by international treaty under the Migratory Bird Treaty Act (MBTA) of 1918 (50 Code of Federal Regulations Section 10.13). Sections 3503, 3503.5, and 3513 of the California Fish and Game Code prohibit the taking of all birds and their active nests including raptors and other migratory nongame birds (as listed under the MBTA). Under the MBTA, if activities to remove the trees occur during the nesting season (February 15 through August 15), a biological monitor shall be present during the removal activities to ensure that no active nests would be adversely affected (including disturbances which would cause abandonment of active nests containing eggs and/or young). If project activities cannot feasibly avoid the breeding bird season, beginning 30 days prior to the disturbance of suitable nesting habitat, the Applicant shall implement Mitigation Measure **BR-1** to ensure impacts related to nesting birds would be less than significant.

- e) **Less-Than-Significant Impact.** A significant impact would occur if the proposed project were inconsistent with local regulations pertaining to biological resources. As discussed in Response to Checklist Question 3.4(d), the two existing trees on-site would be removed during construction and replaced with three drought-tolerant trees. The removal of trees on the project site requires obtaining a permit from the Tree Office to remove and replace the trees in accordance with the BPMC Section 153.165.090. As shown on the landscape plan presented in **Figure 2-4**, the two existing trees on-site would be removed and replaced with three 24-inch box drought-tolerant trees. As the project applicant would be required to comply with the City's tree preservation ordinance, the proposed project would not conflict with any local policies or ordinances protecting biological resources. Therefore, impacts would be less than significant.

- f) **No Impact.** A significant impact would occur if the proposed project were inconsistent with any adopted Habitat Conservation Plan (HCP), Natural Community Conservation Plan (NCCP) or other approved local, regional, or state habitat conservation plan. The project site is located in an urbanized area and surrounded primarily by commercial and residential uses. The project site is not located within or adjacent to the boundaries of any adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan. Therefore, no impact would occur.

MITIGATION MEASURES

- BR-1:** If construction commences during the bird breeding season, a preconstruction survey for nesting birds shall occur within three days prior to construction activities by an experienced avian biologist. The survey shall occur within all suitable nesting habitats within the project impact area and a 500-foot buffer. If nesting birds are found, an avoidance area shall be established in consultation with the resource agencies as appropriate by a qualified biologist around the nest until a qualified avian biologist has determined that young have fledged, or nesting activities have ceased. If there is a lapse in construction activities for more than seven days during the bird breeding season, the project site and its 500-foot buffer shall be re-surveyed.

	Potentially Significant Impact	Less-Than-Significant Impact with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
3.5 CULTURAL RESOURCES - Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

a) **No Impact.** A significant impact would occur if the proposed project would cause a substantial adverse change in the significance of a historical resource. There are no historic resources listed in the California Register of Historical Resources pursuant to in Section 15064.5 on, adjacent to, or in proximity to the project site. The proposed project site is currently vacant, and the proposed project does not propose to change the local historic designations of any recognized historical sites or structures. Therefore, no impact would occur.

b) **Less-Than-Significant Impact.** A significant impact would occur if a known or unknown archaeological resource would be removed, altered, or destroyed as a result of the proposed project. According to the City’s 2020 General Plan, Baldwin Park does not contain any known archaeological resources as defined by Section 15064.5 of the CEQA Guidelines. Furthermore, the project site has also been previously disturbed and, therefore the potential for uncovering such resources is considered highly unlikely. However, there is a possibility that archaeological artifacts may be present underground that were not recovered during prior construction. If archaeological resources are discovered during excavation or grading activities, work is required to cease in the area of the find until a qualified archaeologist has evaluated the find in accordance with federal, state, and local guidelines, including those set forth in PRC Section 21083.2. Therefore, as the proposed project is required to comply with existing regulations protecting archaeological resources, impacts would be less than significant.

c) **Less-Than-Significant Impact.** A significant impact would occur if previously interred human remains would be disturbed during excavation of the project site. While no formal cemeteries, other places of human interment, or burial grounds or sites are known to exist within the project site, there is always a possibility that human remains may be unexpectedly encountered during construction. However, in the unlikely event that human remains are encountered during construction the proposed project is required to comply with Section 7050.5 of the California Health and Safety Code. Furthermore, if human remains of Native American origin are discovered during construction activities, the proposed project would be required to comply with state laws, under the jurisdiction of the Native American Heritage Commission (PRC Section 5097), relating to handling of Native American burials (See Response to Checklist Question 3.18). Therefore, with compliance of existing state regulations, impacts related to human remains would be less than significant.

	Potentially Significant Impact	Less-Than-Significant Impact with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
3.6. ENERGY - Would the project:				
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

a,b) Less-Than-Significant Impact. The main forms of available energy supply are electricity, natural gas, and oil. During construction of the proposed project, energy would be consumed in the form of electricity associated with the conveyance of water used for dust control, powering lights, electronic equipment, or other construction activities that require electrical power. Construction activities typically do not involve the consumption of natural gas. However, construction activities would also consume energy in the form of petroleum-based fuels associated with the use of off-road construction vehicles and equipment, round-trip construction worker travel to the project site, and delivery and haul truck trips. Construction activities would comply with CARB’s “In-Use Off-Road Diesel Fueled Fleets Regulation”, which limits engine idling times to reduce harmful emissions and reduce wasteful consumption of petroleum-based fuel. Additionally, the proposed project would comply the California Renewable Portfolio Standard, the Clean Energy and Pollution reduction Act of 2015 (Senate Bill (SB) 350). Compliance with local, state, and federal regulations would reduce short-term energy demand during the proposed project’s construction to the extent feasible, and proposed project construction would not result in a wasteful or inefficient use of energy.

During operations of the proposed project, Southern California Edison would provide electricity and Southern California Gas Company would provide natural gas to the project site. Energy use associated with operation of the proposed project would be typical of commercial uses, requiring electricity and natural gas for interior and exterior building lighting, heating, ventilation, and air conditioning, electronic equipment, machinery, refrigeration, appliances, security systems, and more. Maintenance activities during operations, such as landscape maintenance, would involve the use of electric or gas-powered equipment. In addition to on-site energy use, the proposed project would result in transportation energy use associated with vehicle trips generated by the proposed commercial development. However, the proposed project does not involve any characteristics or processes that would require the use of equipment that would be more energy intensive than is used for comparable activities or involve the use of equipment that would not conform to current emissions standards and related fuel efficiencies.

The proposed project will be subject to the California Green Building Standards Code, which requires new buildings to reduce water consumption, employ building commissioning to increase building system efficiencies for large buildings, divert construction waste from landfills, and install low pollutant-emitting finish materials. The proposed project does not include any feature (i.e., substantially alter energy demands) that will interfere with implementation of these state and City codes and plans. Therefore, a less-than-significant impact would occur.

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

a.i) No Impact. A significant impact would occur if the proposed project would cause personal injury or death, or result in property damage, as a result of a fault rupture occurring on the project site and if the project site were located within a State-designated Alquist-Priolo Zone or other designated fault zone. The proposed project will not expose people or structures to potential substantial adverse effects involving the rupture of a known earthquake fault. The project site is not located in an official earthquake fault zone or Alquist-Priolo Special Study Zone.⁷ The potential for surface rupture is low. Therefore, no impact would occur.

a.ii) Less-Than-Significant Impact. A significant impact would occur if the proposed project would cause personal injury or death or result in property damage as a result of seismic ground shaking. Although there are no active faults, the City is located in a region subject to violent ground shaking and heavy damage to property in potential earthquake scenarios;⁸ therefore, all construction is required to occur in compliance with the most current California Building Code (CBC) requirements. Additionally, compliance with existing local City building standards and other applicable seismic related design requirements would further reduce the potential for damage to occur as the result of rupture of known earthquake faults in the region. Potential for this type of activity is similar throughout Southern California and no unique or unusual risk is posed by the proposed project. Therefore, impacts would be less than significant.

⁷Property I.D., *Mandatory Commercial Disclosure Report - Environmental Hazards Report*. November 14, 2016.

⁸Fault Activity Map of California, *Fault Activity Map of California*, 2010, <http://maps.conservation.ca.gov/cgs/fam/>, accessed July 26, 2019.

- a.iii) Less-Than-Significant Impact.** A significant impact would occur if the proposed project is located within liquefaction zone or other ground failure caused by ground shaking. Liquefaction is the loss of soil strength resulting from ground shaking. The project site lies in an officially designated liquefaction hazard zone.⁹ However, areas most susceptible to liquefaction are underlain by non-cohesive soils, such as sand and silt, and where groundwater exists within 50 feet of the ground surface. According to the City's General Plan Public Safety Element, the depth of the City's groundwater is more than 50 feet, and therefore, liquefaction hazards are generally low despite the project site's location in a liquefaction hazard zone. Placement and compaction of any fill material for the proposed residential structures shall be performed in accordance with the City of Baldwin Park grading standards and to the satisfaction of a qualified geotechnical engineer. In addition, the project would be required to comply with the CBC, as well as applicable General Plan policies and City codes and regulations. Therefore, impacts would be less than significant.
- a.iv) No Impact.** A significant impact would occur if the project site were in a hillside area with unstable geological conditions or soil types that would be susceptible to failure when saturated. The project site is not located in an officially designated earthquake-induced landslide hazard zone¹⁰. The project site's terrain is relatively flat, and therefore not susceptible to dangers from slope instability. The proposed project will not involve development activity and will not expose people or structures to potential substantial adverse effects, including risk of loss, injury or death involving landslides. Therefore, no impact would occur.
- b) Less-Than-Significant Impact.** A significant impact would occur if construction activities or future uses of the proposed project would result in substantial soil erosion or loss of topsoil. During ground disturbing activities, such as grading, the project site could potentially be subject to soil erosion or loss of topsoil. However, the proposed project would be required to comply with local, state, and federal regulations and standards related to minimizing potential erosion impacts. The project applicant would also be required to comply with Section 52.13 of the BPMC, which controls pollutants from new development/redevelopment projects. In accordance with the requirements of the National Discharge Elimination System (NPDES) permit and Section 52.13 of the BPMC, the project applicant would be required to prepare and implement a standard urban stormwater mitigation plan (SUSMP) that the City would review and approve prior to construction and operation of the proposed project. The SUSMP will include conditions that consist of low impact development, structural and non-structural best management practices (BMPs) and source control BMPs. Therefore, less-than-significant impacts related to soil erosion or the loss of topsoil would occur.
- c) Less-Than-Significant Impact.** A significant impact would occur if any unstable geological conditions would result in any type of geological failure, including lateral spreading, off-site landslides, liquefaction, or collapse. As discussed above, the project site lies in a liquefaction hazard zone where groundwater is more than 50 feet beneath soil surface. Therefore, the potential for liquefaction hazard is low, even though the project site lies within a known liquefaction zone. The project will be subject to compliance with Public Safety Policy 1.2 of the General Plan and the CBC to ensure potential impacts of liquefaction would be less than significant.

Lateral spreading is a phenomenon in which large blocks of intact, non-liquefied soil move down slope on a liquefied soil layer. Lateral spreading is often a regional event. For lateral spreading to occur, the liquefiable soil zone must be laterally continuous, unconstrained laterally, and free to move along sloping ground. Lateral spreading is unlikely to occur within the City due to the lack of topography and unchannelized waterbodies. The City's General Plan Public Safety Element

⁹California Geological Survey, *Earthquake Zones of Required Investigation - Baldwin Park Quadrangle*, 1991, http://gmw.conservation.ca.gov/SHP/EZRIM/Maps/BALDWIN_PARK_EZRIM.pdf, accessed July 29, 2019.

¹⁰Property I.D., *Mandatory Commercial Disclosure Report - Environmental Hazards Report*, November 14, 2016.

Policy 1.2 requires the implementation of Uniform Building Code seismic safety standards for the construction of new buildings. In addition, the CBC requires all new development to have a site-specific geology report prepared by a registered geologist or soils expert and submitted to the City for review, which will ensure impacts related to expansive soils will be evaluated on a project-by-project basis.

There are no known ongoing or planned large-scale extractions of groundwater, gas, oil, or geothermal energy that will cause subsidence within Baldwin Park. Therefore, impacts associated with subsidence would be less than significant.

- d) **Less-Than-Significant Impact.** A significant impact would occur if the project was 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. Expansive soils are those that undergo volume changes as moisture content fluctuates, swelling substantially when wet or shrinking when dry. Soil expansion can cause damage to building foundations, roads and other structures.

The project site lies in an area with expansive soils with low shrink-swell potential. CBC requires that a soil and geological report be prepared for any development. The presence of expansive soils and identification of measures to eliminate this constraint (such as removal and replacement with suitable engineered materials) will be determined through site-specific geotechnical evaluations to be conducted as part of the City's plan check process. Such routine procedures will apply to proposed project. Therefore, impacts would be less than significant.

- e) **No Impact.** A significant impact would occur if the project site had soils incapable of adequately supporting the use of septic tanks or alternative waste-water disposal systems where sewers are not available. The project site is in a highly urbanized area, where wastewater infrastructure is currently in place. The proposed project would connect to existing sewer lines that serve the project site and would not use septic tanks or alternative wastewater disposal systems. Therefore, no impact would occur.

- f) **Less-Than-Significant Impact with Mitigation Incorporated.** A significant impact would occur if the project directly or indirectly destroyed a unique paleontological resource or site or unique geologic feature. The project site is on previously disturbed, flat topography does not contain any unique geological resources or sites. According to the City's General Plan, there are no known unique paleontological resources or sites in Baldwin Park. However, there exists a possibility that paleontological resources exist at sub-surface levels and may be uncovered during grading and excavation activities for the proposed building foundation. In the event that paleontological resources are encountered during construction, the project Applicant would implement Mitigation Measure **GS-1**. Therefore, impacts would be less than significant.

MITIGATION MEASURES

- GS-1** If paleontological resources are discovered during excavation, grading, or construction, the City of Baldwin Park Department of Building and Safety Division shall be notified immediately, and all work shall cease in the area of the find until a qualified paleontologist evaluates the find. The paleontologist shall determine the location, the time frame, and the extent to which any monitoring of earthmoving activities shall be required. The found deposits would be treated in accordance with federal, state, and local guidelines, including those set forth in Public Resources Code Section 21083.2. Construction activity may continue unimpeded on other portions of the project site.

	Potentially Significant Impact	Less-Than-Significant Impact with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
3.8 GREENHOUSE GAS EMISSIONS - Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

a) **Less-Than-Significant Impact.** GHG emissions refer to a group of emissions that are generally believed to affect global climate conditions. The greenhouse effect compares the Earth and the atmosphere surrounding it to a greenhouse with glass panes. The glass panes in a greenhouse let heat from sunlight in and reduce the amount of heat that escapes. GHGs, such as carbon dioxide (CO₂), methane (CH₄), and nitrous oxide (N₂O), keep the average surface temperature of the Earth close to 60°F. Without the natural greenhouse effect, the Earth's surface would be about 61°F cooler.¹¹

In addition to CO₂, CH₄, and N₂O, GHGs include hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF₆), black carbon (black carbon is the most strongly light-absorbing component of particulate matter emitted from burning fuels, such as coal, diesel, and biomass), and water vapor. CO₂ is the most abundant pollutant that contributes to climate change through fossil fuel combustion. The other GHGs are less abundant but have higher global warming potential than CO₂. To account for this higher potential, emissions of other GHGs are frequently expressed in the equivalent of CO₂, denoted as CO₂e. CO₂e is a measurement used to account for the fact that different GHGs have different potential to retain infrared radiation in the atmosphere and contribute to the greenhouse effect. This potential, known as the global warming potential (GWP) of a GHG, is dependent on the lifetime, or persistence, of the gas molecule in the atmosphere.

The CEQA Guidelines require lead agencies to adopt GHG thresholds of significance. When adopting these thresholds, the amended Guidelines allows lead agencies to consider thresholds of significance adopted or recommended by other public agencies, or recommended by experts, provided that the thresholds are supported by substantial evidence, and/or to develop their own significance threshold. Neither the City nor SCAQMD has officially adopted a quantitative threshold value for determining the significance of GHG emissions that will be generated by projects under CEQA.

SCAQMD published the Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold in October 2008.¹² SCAQMD convened a GHG CEQA Significance Threshold Stakeholder Working Group beginning in April of 2008 to examine alternatives for establishing quantitative GHG thresholds within the district’s jurisdiction. The Working Group proposed a tiered screening methodology for assessing the potential significance of GHG emissions generated by CEQA projects. The tiered screening methodology was outlined in the minutes of the final Working Group meeting on September 28, 2010.¹³ For the purposes of this environmental assessment, the interim Tier III screening threshold value of 3,000 MTCO₂e per year is the most

¹¹California Environmental Protection Agency Climate Action Team, *Climate Action Report to Governor Schwarzenegger and the California Legislature*, March 2006.

¹²SCAQMD, *Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold*, October 2008.

¹³SCAQMD, *Minutes for the GHG CEQA Significance Threshold Stakeholder Working Group #15*, September 28, 2010, [http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-\(ghg\)-ceqa-significance-thresholds/year-2008-2009/ghg-meeting-15/ghg-meeting-15-minutes.pdf?sfvrsn=2](http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/year-2008-2009/ghg-meeting-15/ghg-meeting-15-minutes.pdf?sfvrsn=2), accessed June 4, 2019.

appropriate comparison value for impacts determination based on the commercial elements comprising the proposed project.

GHG emissions that would be generated by the proposed project were estimated using CalEEMod, as recommended by the SCAQMD. CalEEMod quantifies GHG emissions from construction activities and future operation of projects. Sources of GHG emissions during project construction will include heavy-duty off-road diesel equipment and vehicular travel to and from the project site. Sources of GHG emissions during project operation will include employee and delivery vehicular travel, energy demand, water use, and waste generation. In accordance with SCAQMD methodology, the total amount of GHG emissions that would be generated by construction of the proposed project was amortized over a 30-year operational period to represent long-term impacts.

Table 3-4 presents the estimated GHG emissions that would be released to the atmosphere on an annual basis by the proposed project. Construction of the proposed project would produce approximately 121.7 MTCO₂e, or 4.1 MTCO₂e annually over a 30-year period. The total annual operating emissions would be approximately 151.2 MTCO₂e per year after accounting for amortized construction emissions. This mass rate is substantially below the most applicable quantitative draft interim threshold of 3,000 MTCO₂e per year recommended by SCAQMD to capture 90 percent of CEQA projects within its jurisdiction. Therefore, the proposed project would result in a less-than-significant impact related to GHG emissions.

TABLE 3-4: PROPOSED PROJECT ANNUAL GREENHOUSE GAS EMISSIONS

Scenario and Emission Source	Carbon Dioxide Equivalent (Metric Tons per Year)
Construction Emissions Amortized (Direct) /a/	4.2
Area Source Emissions (Direct)	<0.1
Energy Source Emissions (Indirect)	25.4
Mobile Source Emissions (Direct)	82.8
Waste Disposal Emissions (Indirect)	32.9
Water Distribution Emissions (Indirect)	5.8
TOTAL	151.2
SCAQMD Draft Interim Significance Threshold	3,000
Exceed Threshold?	No
/a/ Based on SCAQMD guidance, the emissions summary also includes construction emissions amortized over a 30-year span.	
SOURCE: TAHA, 2019.	

- b) **Less-Than-Significant Impact.** Assembly Bill 32 requires CARB to develop and enforce regulations for the reporting and verification of statewide GHG emissions and directs CARB to set a GHG emission limit, based on 1990 levels, to be achieved by 2020. The bill set a timeline for adopting a scoping plan for achieving GHG reductions in a technologically and economically feasible manner. On December 11, 2008, CARB adopted the Scoping Plan, which sets forth the framework for facilitating the state’s goal of reducing GHG emissions to 1990 levels by 2020. The First Update of the Scoping Plan was adopted on May 22, 2014. CARB has adopted the 2017 Scoping Plan in November 2017 which details strategies to cut back 40 percent of GHGs by 2030. Neither Assembly Bill 32, the updated first Scoping Plan or the 2017 Scoping Plan establishes regulations implementing, for specific projects, the Legislature’s statewide goals for reducing GHGs.¹⁴

¹⁴Center for Biological Diversity v. California Department of Fish and Game (2015) 62 CA1.4th 204, 259.

The Scoping Plan outlines a series of technologically feasible and cost-effective measures to reduce statewide GHG emissions, including expanding energy efficiency programs, increasing electricity production from renewable resources (at least 33 percent of the statewide electricity mix), and increasing automobile efficiency, implementing the Low-Carbon Fuel Standard, and developing a cap-and-trade program. These measures are designed to be implemented by state agencies. The proposed project would not interfere with implementation of the Assembly Bill 32 measures.

The California legislature enacted SB 375 in 2008 to set regional targets for the reduction of GHG emissions and require the preparation of Sustainable Communities Strategies (SCSs) by MPOs. SB 743 was enacted in 2013 to evolve the assessment of transportation impacts under CEQA, and in 2018 new the CEQA Guidelines were published that incorporated SB 743 by promulgating the use of VMT and VMT reductions as a significance threshold metric. The proposed project would introduce approximately 102 daily vehicle trips to the project area. As determined by the Traffic Study, operational vehicle trips for the proposed project are not anticipated to substantially change from existing conditions, and the proposed project is not anticipated to cause a significant traffic impact on any CMP arterial monitoring intersections and mainline freeway-monitoring location. The proposed project would not have the potential to conflict with the regional GHG emissions targets and VMT reduction efforts of SB 375 and SB 743, respectively.

With regards to local climate planning initiatives, SCAG adopted the 2016-2040 RTP/SCS to balance future mobility and housing needs with economic, environmental and public health goals. RTP/SCS states that lead agencies such as local jurisdictions have the sole discretion in determining a local project's consistency with the plan. The RTP/SCS focuses the majority of new job growth in high-quality transit areas and other opportunity areas on existing main streets, in downtowns, and commercial corridors, resulting in an improved jobs-housing balance and more opportunity for transit-oriented development. The RTP/SCS also includes programs, policies and measures to address air quality emissions and reduce GHG emissions that are consistent with the provisions of Section 15091 of the CEQA Guidelines, including but not limited to reducing emissions resulting from a project through implementation of project features, project design, or other measures; incorporating design measures to reduce energy consumption and increase use of renewable energy, and using the minimum feasible amount of GHG emitting construction materials.

The proposed project would be consistent with the RTP/SCS by complying with the California Building Code (Title 24), including the California Green Building Standards Code. The California Green Building Standard Code, referred to as CalGreen, is the first statewide Green Building Code. CalGreen lays out minimum requirements for newly constructed buildings in California, which will reduce GHG emissions through improved efficiency and process improvements. It requires builders to install plumbing that cuts indoor water use by as much as 20 percent, to divert 50 percent of construction waste from landfills to recycling, and to use low-pollutant paints, carpets, and floors. By complying with Title 24, the proposed project would be consistent with RTP/SCS. Additionally, the proposed project would be consistent with RTP/SCS by introducing new local job creation in the project area and improving the economic vitality of the Garvey Avenue commercial corridor. The project area is serviced by several local and regional bus lines that connect it to the surrounding City and Southern California region.

In 2012, the City of Baldwin Park adopted an Energy Action Plan (EAP) put forth by the San Gabriel Valley Council of Governments (SGVCOG) along with 26 other SGVCOG member agencies. This EAP focused on greenhouse gas emission reduction in both community and municipal operations. The EAP presents the State-recommended GHG reduction target of 15 percent below baseline emissions levels by 2020 as a supportive target. Policies presented in the EAP include their GHG reduction estimates, presented in ranges, for the year 2020. Goals the EAP include maximizing the use of energy-efficient development design practices and integrating water-

related strategy conservation efforts into new development. The proposed project includes LID techniques as well as design elements to reduce indoor water usage by 45 percent, installation of a drought-tolerant landscape that maintains runoff, and the incorporation of high efficiency lighting fixtures. By incorporating energy and water-efficient designs and best practices, the proposed project would its GHG emissions and remain compliant with the EAP. Therefore, the proposed project would result in a less-than-significant impact related to GHG reduction plans.

	Potentially Significant Impact	Less-Than-Significant Impact with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
3.9 HAZARDS AND HAZARDOUS MATERIALS - Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Expose people or structures, either directly or indirectly to a significant risk of loss, injury or death involving wildland fires?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

a-b) Less-Than-Significant Impact. A significant impact would occur if the proposed project created a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. No industrial uses or activities are proposed that would result in the use or discharge of unregulated hazardous materials and/or substances, or create a public hazard through transport, use, or disposal. Construction of the proposed project would involve the temporary use of potentially hazardous materials, including vehicle fuels, oils, and transmission fluids. Operational activities for the proposed project include the storage of microfiber/cotton towels, car wash brushes and automobile detailing accessories. Such activities would involve limited use and storage of common hazardous substances typical of those used in commercial facilities, such as custodial products, chemical cleaners, pesticides, and other landscaping supplies. For the limited amount of hazardous waste associated with the proposed project, the proposed project would comply with all applicable standards and regulations and adhere to manufacturer's instructions related to the transport, use, or disposal of hazardous materials during construction and operation. to reduce the risk of the release of hazardous materials into the environment. The hazardous materials that would be generated used by the proposed project, such as those indicated above, would be disposed of at the appropriate landfills that accept those types of waste. Therefore, impacts would be less than significant.

- c) **No Impact.** A significant impact would occur if the proposed project emitted hazardous emissions or handled hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school. No schools are located within one-quarter mile of the project site. As discussed above in the Response to Checklist Question 3.9(a-b), the proposed project would involve limited use of hazardous materials (e.g., custodial products, chemical cleaners, pesticides, and other landscaping supplies). Any hazardous materials used by the proposed project would be handled in accordance with applicable state laws and regulations. Therefore, no impact would occur.
- d) **Less-Than-Significant Impact.** A significant impact would occur if the proposed project was located on a hazardous materials site. California Government Code Section 65962.5 requires the compiling of lists of the following types of hazardous materials sites: hazardous waste facilities; hazardous waste discharges, for which the State Water Quality Control Board has issued certain types of orders; public drinking water wells containing detectable levels of organic contaminants; underground storage tanks with reported unauthorized releases; and solid waste disposal facilities, from which hazardous waste has migrated. The California Department of Toxic Substances Control (DTSC) and the State Water Resources Control Board (SWRCB) each maintain a database (EnviroStor and GeoTracker, respectively) that provides access to detailed information on hazardous waste sites and their cleanup statuses. EnviroStor focuses on hazardous waste facilities and sites with known contamination or sites with possible reason for further investigation. GeoTracker focuses on sites that impact or have the potential to impact water quality in California, with an emphasis on groundwater. A search of the EnviroStor and Geotracker databases determined that the proposed project is not included on any list compiled pursuant to Section 65962.5 of the Government Code. However, the project site is mapped in San Gabriel Valley (Area 2), an area identified by the U.S. Environmental Protection Agency (USEPA) as a National Priorities List (NPL) site.

The NPL is the list of sites of national priority among the known releases or threatened releases of hazardous substances, pollutants, or contaminants.¹⁵ San Gabriel Valley (Area 2) is one of eight Operable Units (OUs) identified by USEPA for the San Gabriel Valley Superfund Sites and is also known as San Gabriel Valley Superfund Site Area 2. Located in eastern Los Angeles County and covering 10 square miles, the Baldwin Park OU includes portions of the cities of Azusa, Irwindale, Baldwin Park and West Covina. The area of groundwater contamination is more than miles long and one-mile wide, reflecting multiple, commingled groundwater contaminant plumes. Groundwater contamination extends from the water table (150 to 350 feet deep) to depths of up to 1,000 feet below ground. The primary contaminants in groundwater are trichloroethene (TCE), tetrachloroethene (PCE), carbon tetrachloride, perchlorate, n-nitrosodimethylamine (NDMA), and 1,4-dioxane.¹⁶ Corrective action and monitoring activities with respect to San Gabriel Valley Superfund Site are ongoing under the regulatory oversight. Additionally, existing groundwater contamination is not considered a direct threat to the project site as complete exposure pathways are not expected such as ingestion, dermal contact, or inhalation risk. Therefore, impacts would be less than significant.

¹⁵United States Environmental Protection Agency, *Superfund: National Priorities List (NPL)*, <https://www.epa.gov/superfund/superfund-national-priorities-list-npl>, accessed on July 21, 2019.

¹⁶Department of Toxic Substance Control (DTSC), *Baldwin Park (San Gabriel Valley Superfund Site)*, http://www.envirostor.dtsc.ca.gov/public/profile_report.asp?global_id=60001336, accessed on July 22, 2019.

- e) **Less-Than-Significant Impact.** A significant impact would occur if the proposed project would expose persons residing or working in the project site to risks associated with a safety hazard or excessive noise due to the site's proximity to a public airport or public use airport. The proposed project site is not located within an existing airport land use plan; however, it is located within two miles of the Los Altos Heliport, which is a Federal Aviation Administration approved landing facility.¹⁷ However, given the proposed project's size and commercial use and Los Altos Heliport's limited flight traffic, it is highly unlikely that the project would result in excessive noise or a safety hazard for those residing or working in the project site. As discussed above, the proposed project would involve the limited use of hazardous materials, which would be handled, stored, transported, and disposed of in the appropriate landfills. Therefore, impacts would be less than significant.
- f) **Less-Than-Significant Impact.** A significant impact would occur if the project impaired or interfered with an adopted emergency response plan or emergency evacuation plan. I-10 Freeway, located less than 100 feet south of the project site, is the nearest emergency/disaster route to the project site and is considered a Freeway Disaster Route by the Los Angeles County Department of Public Works. The proposed project does not involve any activities that would require temporary or permanent closure of I-10 Freeway, and emergency vehicle access will always be maintained during the construction and operation of the proposed project in compliance with the requirements of Baldwin Park Fire Department (BPFDD).

Public Safety Policy 1.3 in the Public Safety Element of the City's General Plan requires the implementation of emergency procedures contained in the City's Multi-Hazard Functional Plan and Supplemental Emergency Preparedness Plans. The proposed project would not change or interfere with the emergency response plans of the City and does not propose any alteration to vehicle circulation routes that would interfere with such plans. Therefore, impacts would be less than significant.

- g) **No Impact.** A significant impact would occur if the proposed project would expose people or structures, to a significant risk of loss, injury or death involving wildland fires. The project is within a highly urbanized area and there are no wildlands in the City of Baldwin Park.¹⁸ The Project site is not located in a recognized fire hazard severity zone for a State Responsibility Area (SRA) or Local Responsibility Area (LRA). Therefore, no impact would occur.

¹⁷Property I.D., *Mandatory Commercial Disclosure Report - Environmental Hazards Report*, November 14, 2016.

¹⁸The City of Baldwin Park, *Open Space and Conservation Element of the 2020 General Plan*, 2002.

	Potentially Significant Impact	Less-Than-Significant Impact with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
3.10 HYDROLOGY AND WATER QUALITY - Would the project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
i) result in substantial erosion or siltation on- or off-site;	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or;	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv) impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

- a) **Less-Than-Significant Impact.** A significant impact would occur if discharges associated with the proposed project create pollution, contamination, or nuisance as defined in Section 13050 of the California Water Code (CWC) or violate regulatory standards as defined in the Water Quality Control Plan for the receiving water body.

During construction, there is the potential for short-term surface water quality impacts. Such impacts include runoff of loose soils and/or a variety of construction wastes and fuels that could be carried off-site in surface runoff and into local storm drains and streets that drain eventually into water resources. The proposed project is expected to increase runoff as it adds more than 10,000 square feet of impervious surface area to the project site. However, the design of the proposed project includes pervious, landscaped areas that will capture and retain runoff. The Project does not substantially alter the existing drainage pattern of the site or area in a manner that would result in substantial erosion or siltation on- or off-site. The proposed project would be required to comply with the policies contained within BPMC Section 52.13 to minimize runoff from construction-related activities for “planning priority projects” that could potentially affect water quality. The proposed project falls under the BPMC’s definition of a “planning priority project” due to the inclusion of parking lots with 5,000 square feet or more of impervious surface area in the site plan of the proposed project. The site for every planning priority project must be designed to control pollutants, pollutant loads, and runoff volume to the maximum extent feasible by minimizing impervious surface area and controlling runoff from impervious surfaces through infiltration,

evapotranspiration, bioretention and/or rainfall harvest and use. Construction activities shall retain 100 percent stormwater runoff on-site, or if 100 percent retention is technically infeasible, the infeasibility shall be demonstrated in the submitted LID plan.

With respect to operations, stormwater runoff from the proposed project has the potential to introduce small amounts of pollutants into the stormwater system, including pesticides and fertilizers from landscaped areas and ordinary household cleaners from paved surfaces. Prior to the issuance of a building permit for the proposed project, the project applicant would have to comply with all applicable regulations and obtain a NPDES stormwater permit to indicate that the project features LID standards and BMPs. The proposed project is required to follow the BPMC Section 52.13 to ensure pollutant loads from the project site are minimized for downstream receiving waters. The City's General Plan Open Space and Conservation Policy 5.4 requires the continued enforcement of municipal NPDES Permit to protect and improve the quality of local and regional groundwater resources available to the City.

As such, the proposed project would not violate water quality standards, waste discharge requirements, or stormwater NPDES standards, or otherwise substantially degrade water quality. Therefore, with enforcement of permit requirements, impacts would be less than significant.

- b) **Less-Than-Significant Impact.** A significant impact would occur if the proposed project would substantially decrease groundwater supplies or interfere substantially with groundwater recharge. The proposed project will not deplete groundwater supplies or interfere with groundwater recharge. Potable water in the City of Baldwin Park is provided by three water companies: Valley County Water District (VCWD), San Gabriel Valley Water Company, and Valley View Mutual Water Company (VMWC). VCWD is the largest water supplier in the City and serves approximately 55,000 people in parts of Baldwin Park and neighboring cities.

VCWD supplies water to approximately 80 percent of Baldwin Park's population. According to the VCWD 2015 Water Master Plan, the City as of 2015 had a demand of 7,183 acre-feet per year (AFY) and projects that demand will rise to 9,456 AFY by 2035. VCWD obtains water from a variety of sources including imported water from Covina Irrigation Company, Main San Gabriel Basin Groundwater, and emergency water from the Upper San Gabriel Valley Municipal Water District. According to the Water Master Plan, the VCWD anticipates that the City's population will increase from 55,703 (2015) to 59,449 (2035).

The proposed project would require the installation of new impervious surfaces which could increase runoff on the project site and may lead to a decrease in the amount of water recharged to the groundwater system within the project site; however, due to the small size of the proposed project (0.65 acre), and the fact that the project design includes pervious, landscaped areas (**Figure 2-4**), the proposed project is not anticipated to substantially deplete groundwater supplies or interfere substantially with groundwater recharge. Therefore, impacts would be less than significant.

- c.ii) **Less-Than-Significant Impact.** A significant impact would occur if the proposed project would substantially alter the existing drainage pattern of the project site, including through the alteration of the course of an existing stream or river or through the addition of impervious surfaces, in a manner that would substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site. The proposed project would add over 10,000 square feet of impervious surface area to the project site and thus would substantially alter the existing drainage pattern of the project site and increase the rate or amount of surface runoff. However, construction and operation activities of the proposed project would be required to comply with the BPMC Section 52.13 regarding the retention of stormwater and runoff. Additionally, the project would include pervious landscaping areas that would be designed to capture and retain runoff on-site.

Finally, the area is not located in a Flood Hazard Area and thus the likelihood of flooding on- or off-site is remote. Therefore, impacts would be less than significant.

- c.iii) Less-Than-Significant Impact.** A significant impact would occur if the proposed project would substantially alter the existing drainage pattern of the project site, including through the alteration of the course of an existing stream or river or through the addition of impervious surfaces, in a manner that would create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. Commercial development in a built-out area typically does not generate significant water pollutants through point discharges but does contribute to water quality impacts due to community-wide and regional urban runoff. As discussed in Response to Checklist Question 3.10(a), the proposed project would add over 10,000 square feet of impervious surface area to the project site, however the proposed project will be required to incorporate mitigation measures to retain runoff on-site. Compliance with the BPMC Section 52.13 and the implementation of BMPs would reduce impacts related to the capacity of the City's existing storm drain system, the generation of polluted runoff, impede or redirection of runoff would be less than significant. Furthermore, operations of the proposed project would not require, alteration, or installation of a new drainage system. The proposed project will be required to ensure project-specific and citywide drainage systems have adequate capacity to accommodate the new development and be consistent with the requirements of the NPDES permit. Due to these design requirements to improve infiltration of water on-site, substantial polluted runoff would not occur as a result of the proposed project. Following these procedures will ensure that drainage system capacity would not be exceeded as a result of the proposed project. Therefore, impacts would be less than significant.
- c.iv) Less-Than-Significant Impact.** A significant impact would occur if the proposed project would substantially alter the existing drainage pattern of the project site, including through the alteration of the course of an existing stream or river or through the addition of impervious surfaces, in a manner that would impede or redirect flood flows. The project site is not located in a special flood hazard area.¹⁹ As discussed above, the proposed project would be required to comply with the stormwater runoff policies contained in the BPMC Section 52.13 and the BMPs submitted to obtain the NPDES permit. Compliance with construction related policies contained in the BPMC and the NPDES requirements would retain stormwater runoff on-site and limit the amount of runoff that would enter the stormwater drainage system. The proposed project would not alter the drainage patterns in a manner that would impede or redirect flood flows. Therefore, impacts would be less than significant.
- d) No Impact.** A significant impact would occur if the proposed project was in a flood hazard, tsunami, or seiche zones, and would risk the release of pollutants due to proposed project inundation. The project site is not located within a tsunami, flood hazard, or seiche zone.²⁰ Therefore, the proposed project would not be at risk of pollutant release due to project inundation, and no impact would occur.

¹⁹Property I.D., *Mandatory Commercial Disclosure Report - Environmental Hazards Report*, November 14, 2016.

²⁰*Ibid.*

- e) **Less-Than-Significant Impact.** A significant impact would occur if the proposed project would conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. This would occur if the proposed project discharged water that does not meet the quality standards of agencies that regulate surface water quality and water discharge into storm water drainage systems or did not comply with all applicable regulations as governed by the Regional Water Quality Control Board. Water quality in the project area is regulated by the Los Angeles Regional Water Quality Control Board (LARWQCB). The LARWQCB implements the Los Angeles Regional Board's Basin Plan, designed to preserve and enhance water quality and protect the beneficial uses of all regional waters. Statewide water quality control plans are enclosed in the basin plan that regulate water quality for the ocean waters of California, Coastal and Interstate Waters and Enclosed Bays and Estuaries of California, Enclosed Bays and Estuaries, Inland Surface Waters, Enclosed Bays, and Estuaries of California. The project site located inland within a highly urbanized area and would not impact any of the water bodies covered by a statewide water quality control plan.

The Sustainable Groundwater Management Act (SGMA) requires local public agencies and Groundwater Sustainability Agencies (GSAs) in high- and medium-priority basins to develop and implement Groundwater Sustainability Plans (GSPs) or Alternatives to GSPs. The City of Baldwin Park is located in the San Gabriel Valley Basin and is designated as "very low priority" and therefore is not subject to SGMA. However, as discussed in Response to Checklist Question 3.9(d), the project site lies in the San Gabriel Valley Area 2 Superfund Site, an NPL site by the USEPA. This Superfund site includes groundwater contamination underlying portions of the City of Baldwin Park. In 1994, the USEPA adopted a groundwater cleanup plan for the Baldwin Park area that included large-scale groundwater extraction and treatment projects, five of which have been built, that have a combined treatment capacity of 30,000 gallons per minute. While the project would alter drainage patterns and increase runoff, which could lead to groundwater contamination, the proposed project is not expected to generate sufficient groundwater as to cause the groundwater extraction and treatment projects to exceed daily capacity. The applicant would be required to comply with the City's local procedures to control storm water runoff per Chapter 52 of the BPMC, which contains regulations to meet federal and state water quality requirements related to storm water runoff. The proposed project would also adhere to General Plan Open Space and Conservation Policy 5.4, which requires the continued enforcement of municipal NPDES Permit to protect and improve the quality of local and regional groundwater resources available to the City, specifically within the San Gabriel River watershed. Therefore, impacts related to water quality control plans or sustainable groundwater management plans would be less than significant.

The proposed project would not alter the course of a stream or river. In addition, the proposed project contains a perimeter of pervious landscaped surfaces around the proposed building to capture and retain surface runoff. The project site will maintain existing nearby storm drains. Following compliance with these mitigations, the proposed project would not increase the rate or amount of surface runoff to a level that would result in flooding on- or off-site. Therefore, impacts would be less than significant.

	Potentially Significant Impact	Less-Than- Significant Impact with Mitigation Incorporated	Less-Than- Significant Impact	No Impact
3.11 LAND USE AND PLANNING - Would the project:				
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

a) **No Impact.** A significant impact would occur if the proposed project physically divided an established community. A physical division of an established community is caused by an impediment to through travel or a physical barrier, such as a new freeway with limited access between neighborhoods on either side of the freeway, or major street closures. The proposed project would not involve any street vacation or closure or result in development of new thoroughfares or highways. The proposed improvements to the project site would occur within the existing physical confines of the site. The proposed project is an infill commercial development within an established neighborhood. Vehicular access to the project site would continue to be from existing roadways, and pedestrian access would also be maintained. Therefore, the proposed project would not physically divide an established community, and no impact would occur.

b) **Less-Than-Significant Impact.** A significant impact would occur if the proposed project conflicted with any land use plan, policy, or regulation adopted for reducing the environmental impacts of development. The proposed project is compatible with existing land use and zoning requirements as per the City’s 2020 General Plan and BPMC. The proposed project site has a land use designation of Commercial/Industrial (CI) and zoning code designation of Industrial Commercial (IC). Approval of the proposed project is tentative on the Planning Commission and City Council approving the Tentative Parcel Map to combine the three contiguous parcels (APNs 8556-022-037, 8556-022-038, and 8556-022-039) into one lot with less than the minimum required lot depth within the Industrial Commercial (IC) zone. This zone variance would not conflict with the Land Use Element of the City’s General Plan. The proposed project would not constrain or change the existing land uses within the project site and would replace a vacant lot with commercial uses. The proposed project would be required to follow all applicable state, federal, and local policies, ordinances, and regulations adopted for the purpose of avoiding or mitigating significant environmental impacts. Therefore, impacts would be less than significant.

	Potentially Significant Impact	Less-Than-Significant Impact with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
3.12 MINERAL RESOURCES - Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
a) No Impact. A significant impact would occur if the proposed project resulted in the loss of a known mineral resource that would be of value to the region and the residents of the state. The project will not result in the loss of a known mineral resource that would be of future value to the region or the residents of the State. There are no known mineral resources located within the City of Baldwin Park according to the City’s General Plan. The City is largely built out with urban uses that are incompatible with mineral extraction and/or surface mining activities. In a regional context, potential resources in Baldwin Park are limited in extent and inaccessible due to urbanization; therefore, the proposed project would have no impacts associated with the loss of a mineral resource.				
b) No Impact. A significant impact would occur if the proposed project resulted in the loss of a locally important mineral resource recovery site. The City’s General Plan indicates no known mineral resources locate within the City. The proposed project would not result in the loss of availability of a locally important mineral resource recovery site. Therefore, the proposed project would have no impacts associated with a locally important mineral resource recover site.				

	Potentially Significant Impact	Less-Than-Significant Impact with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
3.13 NOISE - Would the project result in:				
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

a) **Less-Than-Significant Impact with Mitigation Incorporated.** Sound is technically described in terms of the loudness (amplitude) and frequency (pitch). The standard unit of measurement for sound is the decibel (dB). The human ear is not equally sensitive to sound at all frequencies. The A-weighted scale, abbreviated dBA, reflects the normal hearing sensitivity range of the human ear.

Noise is generally defined as unwanted sound. The degree to which noise can impact the human environment ranges from levels that interfere with speech and sleep (annoyance and nuisance) to levels that cause adverse health effects (hearing loss and psychological effects). Human response to noise is subjective and can vary greatly from person to person. Factors that influence individual response include the intensity, frequency, and pattern of noise, the amount of background noise present before the intruding noise, and the nature of work or human activity that is exposed to the noise source.

Studies have shown that the smallest perceptible change in sound level for a person with normal hearing sensitivity is approximately 3 dBA. A change of at least 5 dBA and a 10-dBA increase is subjectively heard as a doubling in loudness. Noise levels decrease as the distance from the noise source to the receiver increases. Noise levels generated by a stationary noise source, or “point source,” will decrease by approximately 6 dBA over hard surfaces (e.g., pavement) for each doubling of the distance. For example, if a noise source produces a noise level of 89 dBA at a reference distance of 50 feet, then the noise level would be 83 dBA at a distance of 100 feet over hard surface from the noise source, 77 dBA at a distance of 200 feet, and so on. Noise levels generated by a mobile source will decrease by approximately 3 dBA over hard surfaces for each doubling of the distance.

This noise analysis discusses sound levels in terms of Equivalent Noise Level (L_{eq}). L_{eq} is the average noise level on an energy basis for any specific time period. The L_{eq} for one hour is the average energy noise level during the hour. The average noise level is based on the energy content (acoustic energy) of the sound. L_{eq} can be thought of as the level of a continuous noise which has the same energy content as the fluctuating noise level. The equivalent noise level is expressed in units of dBA.

Summary of Applicable Noise Regulations/Standards

The Noise Ordinance for the City of Baldwin Park establishes noise standards to control unnecessary, excessive, and annoying noise and vibration in the City. Section 130.37 of the BPMC (Special Noise Sources) prohibits the operation of any tools or equipment for construction or repair work used

between weekday hours of 7:00 p.m. and 7:00 a.m., or at any time on Sundays or holidays, in such a manner that a reasonable person noise disturbance within or within 500 feet from a residential zone. The City has not established quantitative construction equipment noise level standards. Mechanical equipment, such as heating, ventilation, and air condition equipment is also regulated by Section 130.37 of the BPMC. The code states that it is unlawful for any person to operate any machinery, equipment, pump, fan, air conditioning apparatus, or similar mechanical device between the hours of 10:00 p.m. to 7:00 a.m. of the following day when the device creates loud or unusual noises.

Section 130.34 (Ambient Noise Levels) establishes allowable noise levels by time and land use, as shown in **Table 3-5**. A correction to the noise limits is appropriate as follows:

- -5 dB for repetitive impulsive noise, pure tones and sound with cyclically varying amplitude.
- -5 dB for steady whine, screech or hum.
- +2 dB for noise occurring more than five but less than 15 minutes per hour.
- +5 dB for noise occurring more than one but less than five minutes per hour.
- +7 dB for noise occurring less than one minute per hour.

TABLE 3-5: CITY OF BALDWIN PARK NOISE STANDARDS (in dBA)			
Zone	Day 7:00 a.m. – 10:00 p.m.	Evening 7:00 p.m. – 10:00 p.m.	Night 10:00 p.m. – 7:00 a.m.
Residential	55	50	45
Commercial	65	65	55
Industrial	65	65	65

SOURCE: Baldwin Park Municipal Code, *Section 153.140.070 Noise Standards*, August 27, 2019.

Regarding vibration, Section 153.140.090 of the BPMC states that no person or use shall create, maintain or cause ground vibration that is discernable without the aid of instruments to a person of normal sensitivity at any point on a property that is adjacent to the property of the vibration source.

Existing Noise Levels

Noise- and vibration-sensitive land uses are locations where people reside or where the presence of unwanted sound could adversely affect the use of the land. Residences, schools, hospitals, guest lodging, libraries, and some passive recreation areas would each be considered noise- and vibration-sensitive and may warrant unique measures for protection from intruding noise. A 500-foot screening distance has been used as a screening distance in the existing urban environment. Sensitive receptors include:

- Aristocrat Motel located adjacent to the west
- Residences located approximately 40 feet north of the project site across the alley
- Residences located approximately 170 north of the project site along Frazier Street
- Residences located approximately 250 feet northeast of the project site along Parkwood Place
- Residences located approximately 450 feet west of the project site along Frazier Street
- Residences located approximately 500 feet northeast of the project site along Fairgrove Avenue

To characterize the existing noise environment around the project site, short-term noise measurements were taken using a SoundPro DL Sound Level Meter on Tuesday, September 10, 2019 between 12:00 p.m. and 2:30 p.m. Hourly noise levels within the project area ranged from 52.8 to 74.2 dBA L_{eq}. Roadway noise from the I-10 Freeway was the most significant

source of ambient noise in the project area. Existing noise levels at the noise monitoring locations are shown in **Table 3-6**.

TABLE 3-6: EXISTING AMBIENT NOISE LEVELS	
Noise Monitoring Location	Sound Level (dBA, L_{eq})
3108 Frazier St. (Residences)	59.5
13109 Garvey Ave. (Motel)	68.9
1308 Frazier St. (Residences)	63.8
13136 Parkwood Pl. (Residences)	52.8
13134 Fairgrove St. (Residences)	74.2 /a/
/a/ This noise level is higher than typical for a local through street. It is assumed typical conditions are more reflected by the measurement taken on Frazier St. SOURCE: TAHA, 2019.	

Construction

Construction activity would result in temporary increases in ambient noise levels in the project area on an intermittent basis. Noise levels would fluctuate depending on the construction phase, equipment type and duration of use, distance between the noise source and receptor, and presence or absence of noise attenuation barriers. Typical noise levels from various types of equipment that may be used during each construction phase are listed in **Table 3-7**.

TABLE 3-7: CONSTRUCTION EQUIPMENT NOISE LEVEL RANGES	
Construction Equipment	Noise Level at 50 feet (dBA, L_{eq})
DEMOLITION	
Chain Saw	76.7
Dozer	77.7
Backhoe	73.6
GRADING/SITE PREPARATION	
Concrete Saw	82.6
Dozer	77.7
Backhoe	73.6
BUILDING CONSTRUCTION	
Crane	72.6
Forklift	79.4
Backhoe	73.6
PAVING	
Concrete Mixer Truck	74.8
Paver	74.2
Roller	73.0
Backhoe	73.6
ARCHITECTURAL COATING	
Air Compressor	73.7
SOURCE: FHWA, <i>Roadway Construction Noise Model, Version 1.1</i> , 2008.	

Construction activities typically require the use of numerous pieces of noise-generating equipment. The noise levels shown in **Table 3-8** take into account the likelihood that multiple pieces of construction equipment would be operating simultaneously and the typical overall noise levels that would be expected for each phase of construction. When considered as an entire process with multiple pieces of equipment, grading and site preparation activity would generate the loudest noise level of approximately 84.2 dBA L_{eq} at 50 feet.

TABLE 3-8: CONSTRUCTION PHASE NOISE LEVELS	
Construction Phase	Noise Level At 50 Feet (dBA)
Demolition	81.1
Grading/Site Preparation	84.2
Building Construction	81.1
Paving	80.0
Architectural Coating	73.7
SOURCE: FHWA, <i>Roadway Construction Noise Model, Version 1.1, 2008.</i>	

Table 3-9 presents the estimated noise levels at the sensitive receptors nearest to the project site for informational purposes. The most noise-intensive construction activities would occur during the early phases of construction (e.g., site preparation and structural framing). The majority of the latter phases of construction would occur within the newly constructed building, and result in lower noise levels than exterior construction.

TABLE 3-9: UNMITIGATED CONSTRUCTION NOISE LEVELS AT SENSITIVE RECEPTORS				
Sensitive Receptors	Distance to Construction (Feet)	Max Construction Noise Level (dBA, L_{eq})	Existing Noise Level	New Ambient Noise Level (dBA, L_{eq})
Aristocrat Motel adjacent to the west	15	94.7	68.9	94.7
Residences to the north across the Alley	40	86.1	59.5	86.1
Residences to the north along Frazier St.	170	73.6	63.8	74.0
Residences to the north along Frazier St.	280	64.7	63.8	67.3 /a/
Residences to the northeast along Parkwood Pl.	250	65.7	52.8	65.9 /a/
Residences to the east along Fairgrove Ave.	320	63.6	63.8	66.7 /a/
Residences to the west along Frazier St.	450	60.6	63.8	65.5 /a/
Residences to the northeast along Fairgrove Ave.	500	59.7	63.8	65.2 /a/
/a/ Includes a 4.5 dB reduction for intervening row of buildings.				
SOURCE: TAHA, 2019.				

The proposed project would be constructed in a manner typical of urban infill projects and would not require unusually noisy activities such as pile driving. In addition, the proposed project would not require nighttime construction activities. Construction would comply with the allowable construction hours of 7:00 a.m. to 7:00 p.m., which is designed to control noise exposure. To further control construction noise levels, Mitigation Measures **N-1** through **N-7** would be implemented, which are reasonable measures to reduce construction noise.

Mitigation Measure **N-1** would reduce heavy-duty equipment noise levels by at least 3 dBA. Mitigation Measure **N-2** would reduce ground-level construction noise by 10 dBA for ground-level receptors. Although difficult to quantify, Mitigation Measures **N-3** through **N-7** would also help control noise levels. **Table 3-10** shows mitigated noise levels associated with construction activities. Compliance with the BPMC regarding the allowable hour of construction and implementation of mitigation measures would adequately control exposure to construction noise. Therefore, the proposed project would result in a less-than-significant impact related to construction noise.

TABLE 3-10: MITIGATED CONSTRUCTION NOISE LEVELS AT SENSITIVE RECEPTORS					
Sensitive Receptors	Distance to Construction (Feet)	Mitigation Measure Attenuation /b,c/	Max Construction Noise Level (dBA, L_{eq})	Existing Noise Level	New Ambient Noise Level (dBA, L_{eq})
Aristocrat Motel adjacent to the west	15	13	81.7	68.9	81.9
Residences to the north across the Alley	40	13	73.1	59.5	73.3
Residences to the north along Frazier St.	170	13	60.6	63.8	65.5
Residences to the north along Frazier St.	280	13	51.7	63.8	64.1
Residences to the northeast along Parkwood Pl.	250	13	52.7	52.8	55.8
Residences to the east along Fairgrove Ave.	320	13	50.6	63.8	64.0
Residences to the west along Frazier St.	450	13	47.6	63.8	63.9
Residences to the northeast along Fairgrove Ave.	500	13	46.7	63.8	63.9

/a/ Includes a 4.5 dB reduction for intervening row of buildings.
 /b/ Includes a 3 dB reduction for equipment mufflers.
 /c/ Includes a 10 dB reduction for noise barriers.
SOURCE: TAHA, 2019.

Operations

Stationary Sources. The proposed project would include several stationary sources of noise typical of commercial warehouse buildings. Heating, ventilation, and air conditioning (HVAC) systems in particular may generate unwanted noise in the project vicinity. HVAC equipment without muffling or enclosures typically generates a noise level of approximately 60 dBA at 50 feet. The City of Baldwin Park has not established a quantitative noise threshold for HVAC equipment. BPMC Section 130.37 regulates mechanical equipment, such as HVAC equipment. According to the code it is unlawful for any person to operate mechanical equipment that creates loud or unusual noises during the hours of 10:00 p.m. to 7:00 a.m. HVAC equipment would be located on the rooftop and would be more than 80 feet away from the residences to the north and elevated above ground level. HVAC noise is not anticipated to be audible above existing traffic noise along Garvey Avenue, which has an existing ambient noise level of 68.9 dBA L_{eq}. Furthermore, the HVAC equipment would not constitute a loud and unusual noise source that is atypical for urban environments. Therefore, the proposed project would result in a less-than-significant impact related to HVAC equipment noise.

Vehicle Noise on Roadways. Implementation of the proposed project would result in additional traffic on adjacent roadways, thereby increasing vehicular noise in the vicinity of existing and proposed land uses. The proposed project would generate approximately 102 daily trips, 16 AM peak hour trips, and 18 PM peak hour trips.

Table 3-11 shows roadway noise levels for Existing Conditions (2019), Existing with Project (2019), Future No Project (2022), and Future With Project (2022). According to the 2013 California Department of Transportation (Caltrans) Technical Noise Supplement to the Traffic Noise Analysis Protocol, doubling of traffic on a roadway would result in an increase of 3 dBA, which is considered a perceptible change in sound level. The primary mobile noise source for the project site is the I-10 Freeway. The 102 daily trips generated by the proposed project would be nominal compared to the vehicle capacity of I-10 Freeway (annual average daily traffic volume of 222,000 at Bess Avenue/Frazier Street, Baldwin Park), located 50 feet south of the project site. **Table 3-12** shows that the roadway noise increase attributed to the proposed project would be less than 0.3 dBA on the local roadway network and is not anticipated to result in a perceptible change in sound level for a person with normal hearing sensitivity or result in a 3 dBA or more increase. Therefore, the proposed project would result in a less-than-significant impact related to mobile noise.

TABLE 3-11: ESTIMATED MOBILE SOURCE NOISE LEVELS				
Roadway Segment	Estimated Noise Levels (dBA, L_{eq}) at 50 feet			
	Existing (2019)	Existing With Project (2019)	Future No Project (2022)	Future With Project (2022)
Frazier St. from Garvey Ave. to Fairgrove St.	60.6	60.6	60.9	60.9
Garvey Ave. from Fairgrove St. to Frazier St.	57.1	57.3	57.2	57.4
Fairgrove St. from Frazier St. to Garvey Ave.	50.9	51.0	51.0	51.0

SOURCE: TAHA, 2019.

TABLE 3-12: CHANGE IN MOBILE SOURCE NOISE LEVELS			
Roadway Segment	Estimated (dBA, L_{eq})		
	Existing (2019) vs. Existing With Project (2019)	Future With Project (2022) vs. Future No Project (2022)	Existing (2019) vs. Future With Project (2022)
Frazier St. from Garvey Ave. to Fairgrove St.	0.0	0.0	0.3
Garvey Ave. from Fairgrove St. to Frazier St.	0.2	0.2	0.3
Fairgrove St. from Frazier St. to Garvey Ave.	0.1	0.0	0.1

SOURCE: TAHA, 2019.

b) No Impact.

Construction

Construction activity can generate varying degrees of vibration, depending on the construction procedure and the construction equipment used. Operation of construction equipment generates vibrations that spread through the ground and diminish in amplitude with distance from the source. The effect on buildings located in the vicinity of a construction site often varies depending on soil type, ground strata, and construction characteristics of the receiver building(s). The results from vibration can range from no perceptible effects at the lowest vibration levels, to low rumbling sounds and perceptible vibration at moderate levels, and to damage at the highest levels.

Because construction activity is short-term and equipment moves around a project site, the primary concern regarding construction vibration relates to building damage. Activities that can result in damage include demolition and site preparation in close proximity to sensitive structures. Typical vibration levels associated with relevant construction equipment are provided in **Table 3-13**. Importantly, construction would not require pile driving.

TABLE 3-13: VIBRATION VELOCITIES FOR CONSTRUCTION EQUIPMENT

Equipment	Peak Particle Velocity at 25 feet (Inches/Second)
Large Bulldozer	0.089
Loaded Trucks	0.076
Small Bulldozer	0.003

SOURCE: FTA, *Transit Noise and Vibration Impact Assessment*, September 2018.

The BPMC prohibits any person from creating, maintaining, or causing ground vibration that is discernible without the aid of instruments to a person of normal sensitivity at any point on a property that is adjacent to the vibration source, with ground vibration caused by moving vehicles or temporary construction exempted (Section 153.140.080). The Federal Transit Administration (FTA) has published guidance stating that engineered concrete and masonry buildings (e.g., typical commercial and multi-family residential buildings) can withstand peak particle velocity (PPV) vibration of levels of at least 0.3 inches per second without experiencing damage. Heavy-duty equipment operating within 12 feet of a structure would generate vibration levels that exceed 0.3 inches per second PPV. Heavy-duty equipment would typically operate at least 15 feet away from the property line of the motel to the west and at least 40 feet from the multi-family residences to the north. The vibration level for a large bulldozer would be 0.191 inches per second PPV at the nearest structure (Aristocrat Motel), which would be below the 0.3 inches per second PPV vibration damage threshold. Vibration is a localized event and attenuates rapidly with distance and at this distance vibration damage would not occur. The City regulates construction noise by limiting the allowable hours of activities to between 7:00 a.m. to 7:00 p.m. Commercial construction is typically over by 4:00 p.m. even though later construction is allowed. Complying with the City standards is considered sufficient for limiting exposure to vibration levels. Therefore, the proposed project would result in a less-than-significant impact related to construction vibration.

Operation

The proposed project would not include significant sources of vibration. Vehicle trips associated with the project would not generate perceptible vibrations as rubber-tired vehicles rarely create ground-borne vibration problems unless there is a discontinuity or bump in the road that causes the vibration. Therefore, the proposed project would result in a less-than-significant impact related to operational vibration.

- c) **Less-Than-Significant Impact.** The nearest public airport to the project site is the San Gabriel Airport, located approximately 2.8 miles away. The proposed project is located within two miles of the Los Altos Heliport, a Federal Aviation Administration approved landing facility reserved for private use. However, given that the heliport is reserved for private use and is located on a rooftop approximately 40 feet above the ground surface, the proposed project would not expose persons working or residing in the project area to excessive noise. Therefore, a less-than-significant impact would occur.

MITIGATION MEASURES

- N-1** Power construction equipment (including combustion engines), fixed or mobile, shall be equipped with muffling devices consistent with manufacturers' standards. All equipment shall be properly maintained to assure that no additional noise, due to worn or improperly maintained parts, would be generated.
- N-2** Barriers, such as flexible sound control curtains extending eight feet in height shall be erected around the Project site's northern, western, and eastern boundaries to minimize the amount of noise during construction on the nearby noise-sensitive uses located offsite. These barriers shall be capable of reducing noise levels by at least 15 decibels.
- N-3** A public liaison shall be appointed for project construction will be responsible for addressing public concerns about construction activities, including excessive noise. As needed, the liaison shall determine the cause of the concern (e.g., starting too early, bad muffler) and implement measures to address the concern.
- N4** The public shall be notified in advance of the location and dates of construction hours and activities. All notices that are sent out and all signs posted at the construction site shall list the contact name and telephone number of the disturbance coordinator.
- N5** Rubber-tired equipment shall be used rather than tracked equipment when feasible.
- N6** Equipment shall be turned off when not in use for an excess of five minutes, except for equipment that requires idling to maintain performance.
- N7** Construction haul routes shall be designed to avoid noise sensitive uses (e.g., residences, convalescent homes, schools, churches, etc.), to the extent feasible.

	Potentially Significant Impact	Less-Than- Significant Impact with Mitigation Incorporated	Less-Than- Significant Impact	No Impact
3.14 POPULATION AND HOUSING - Would the project:				
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

a) **No Impact.** A significant impact would occur if the proposed project would induce substantial unplanned population growth. Projects which induce substantial unplanned population growth typically include housing development. The proposed project is a commercial building on a site that is zoned for Industrial Commercial (IC) uses and does not conflict with the Land Use Element of the City’s General Plan or the City’s Zoning Code. Given that the General Plan addresses anticipated population growth in the City, compliance with the General Plan means that the proposed project would not induce population growth that was unplanned or unanticipated. Therefore, no impact related to substantial unplanned population growth would occur.

b) **No Impact.** A significant impact would occur if the proposed project would displace substantial numbers of existing people or housing. The project site is on vacant land and will not displace any existing people or housing. The proposed project would be a commercial building with approximately eight employees, and it is highly unlikely that existing housing stock would be unable to accommodate them. Therefore, no impact would occur.

Potentially Significant Impact	Less-Than- Significant Impact with Mitigation Incorporated	Less-Than- Significant Impact	No Impact
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3.15 PUBLIC SERVICES

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

i) Fire protection?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ii) Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii) Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv) Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
v) Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

a.i) Less-Than-Significant Impact with Mitigation Incorporated. A significant impact would occur if the proposed project would result in substantial adverse impacts such that fire protection services would not be able to adequately serve the proposed Project, necessitating a new station or physical alteration of a fire station. Fire prevention and protection services for the City of Baldwin Park are provided by the Los Angeles County Fire Department (LACFD) Fire Station 29, located approximately 2.3 miles northeast from the project site at 14334 Los Angeles Street. The proposed project does not include residential uses and would therefore not directly or induce population increase in the vicinity of the project site. Project operations may affect the demand for fire service, however, it is not anticipated that there would be a need to expand an existing fire station or build a new station to maintain acceptable service ratios, response times, or other performance objectives due to the project site’s proximity to the fire stations described above. Furthermore, prior to construction of the proposed project, a plot plan and emergency response plan would be submitted to the LACFD for review of adherence to all relevant local and State requirements regarding fire safety, including but not limited to adequate turning radii, the installation of fire sprinkler systems, and the provision of access roadways with all-weather surfaces.

Project construction may generate traffic associated with the movement of construction equipment, removal of demolition and excavation materials, and construction worker trips. Flammable materials and liquids may also be present during construction. Moreover, there may be temporary lane closures for utility improvements, staging, and other construction activities. However, with implementation of Mitigation Measures **PS-1** through **PS-3**, construction impacts would be less than significant.

a.ii) Less-Than-Significant Impact. A significant impact would occur if the proposed project would result in substantial adverse impacts such that police and law enforcement services are unable to maintain acceptable performance objectives. Primary police and law enforcement services are provided by the City of Baldwin Park Police Department (BPPD) located approximately two miles north east of the project site at 14403 Pacific Avenue; supplemental services are provided by the Los Angeles County Sheriff Department and the California Highway Patrol, located approximately one mile east of the project site at 14039 Francisquito Avenue.

As construction activity would occur entirely within the project site, there would be no direct blockage of police emergency routes. However, slow-moving construction-related vehicles such as haul trucks may be present. In the case of an emergency, police vehicles would be able to circumvent these slow-moving construction-related vehicles using police sirens. Furthermore, the proposed project would comply with all local and state regulatory measures related to construction to ensure the safety of the project site, personnel working on it, and the public. Additionally, the project site perimeter would be fenced during construction.

Once constructed, the proposed project would operate commercial uses that would introduce eight new employees at the project site. While the increase of eight employees could incrementally increase the need for police protection services, the proposed project would be required to pay a development impact fee (DIF), which would be used to pay for any additional law enforcement facilities, vehicles and equipment required as a result of the proposed project. Any additional police services required as a result of the proposed project would be mitigated by the Applicant paying the DIF. Therefore, impacts associated with police protection services would be less than significant.

- a.iii) Less-Than-Significant Impact.** A significant impact would occur if the proposed project would create a substantial employment or population growth, which could generate a demand for school facilities that would exceed the capacity of the school district, necessitating a new school or physical alteration of an existing school, the construction of which would cause a significant environmental impact. The proposed project does not include a residential component, which would create housing or any other facility that would increase the local population that would require an increase of student at local schools. Pursuant to Section 65995 of the Government Code, the construction of a commercial space would be charged impact fees to construct or reconstruct school facilities, potentially increasing the school district's capacity. Therefore, impacts associated with school facility capacity would be less than significant.
- a.iv) Less-Than-Significant Impact.** A significant impact would occur if the proposed project would exceed the capacity or capability of the local park system. As explained in Response to Checklist Question 3.14(a), the proposed project would not induce substantial population growth. Consequently, the proposed project would not accelerate the deterioration of existing recreational facilities. Moreover, as the proposed project is predicated on the City Council's approval of a tentative parcel map, it is pursuant to the Quimby Act and would be required to pay fees to contribute to a fund to acquire new parkland or purchase capital improvements at existing parks. Therefore, the proposed project would not create park capacity or service level problems or result in substantial physical impacts associated with the provision of new or altered parks facilities. Accordingly, impacts associated with parkland capacity would be less than significant.
- a.v) Less-Than-Significant Impact.** A significant impact would occur if the proposed project would result in substantial employment or population growth that could generate a demand for other public facilities, including roads, transit, utilities, and libraries, which exceed the capacity available to serve the project site, necessitating new or physically altered public facilities, the construction of which would cause significant environmental impacts.

The Los Angeles County Library Department provides library services to Baldwin Park. The Baldwin Park Library located at 4181 Baldwin Park Boulevard and is approximately 1.9 miles north-east of the project site. As explained in Response to Checklist Question 3.14(a), the proposed project would not induce substantial growth in population, and the Project would not substantially affect the libraries' ability to maintain acceptable service ratios or to meet performance objectives. Therefore, impacts would be less than significant.

MITIGATION MEASURES

- PS-1** If there are partial closures to streets surrounding the project site, flag persons shall be used to facilitate the traffic flow until the street closure around the construction is complete.
- PS-2** During construction, Los Angeles County Fire Department access from major roadways shall remain clear and unobstructed.
- PS-3** The construction contractors and work crews shall (1) properly maintain the mechanical equipment according to best practices and the manufacturers' procedures; (2) ensure proper storage of flammable materials; and (3) clean up spills of flammable fluids.

	Potentially Significant Impact	Less-Than-Significant Impact with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
3.16 RECREATION				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

a-b) Less-Than-Significant Impact. A significant impact would occur if the proposed project increased the use of existing parkland and recreational facilities so as to accelerate or induce their physical deterioration. The proposed project would be a commercial building and does not propose any residential uses. Employment generated by the proposed project would be filled by the existing labor force within the nearby communities. Therefore, the proposed project would not induce substantial population or employment growth and consequently would not accelerate the deterioration of existing parks nor require the expansion or construction of additional recreational facilities. The proposed project is not expected to impact the City’s existing parks or recreational facilities. As a condition of approval for the new development, the City will require a payment of a Parkland In-Lieu Fee (Quimby Fee) to help reduce potential impacts of future development on parks and recreational facilities; thus, deterioration to existing parks and recreation facilities will be less than significant as a result of the development project because parks and recreation facilities will be incrementally expanded or new facilities built to meet future demand. In addition, the proposed project will not induce unplanned population growth that would accelerate parkland deterioration nor induce the need for new parkland and recreation construction. Therefore, impacts associated with parkland and recreational facilities would be less than significant.

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

a) **Less-Than-Significant Impact.** A significant impact would occur if the proposed project would conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities. The proposed project would not change roadway designations from those in the Transportation Element of City’s General Plan and would be consistent with adopted plans and policies related to the circulation system. The key roadways in the project area include Garvey Avenue, Fairgrove Avenue and Frazier Street. Garvey Avenue provides one travel lane in each direction, and on-street parking is generally prohibited on both sides of the roadway. Fairgrove Avenue is classified as a Residential Street in the City’s General Plan and provides one travel lane in each direction. On-street parking is permitted on both sides of Fairgrove Avenue. Frazier Street is classified as a Collector roadway south of Francisquito Avenue in the City’s General Plan. Frazier Street provides one travel lane in each direction, and on-street parking is generally permitted on both sides of the roadway.

The proposed project would not conflict with policies supporting alternative transportation modes, and no changes to exiting bicycle or pedestrian facilities would occur. The project area is served by bus transit lines operated by the City of Baldwin Park and Foothill Transit. Foothill Transit Line 488 runs via Ramona Boulevard, Francisquito Avenue, Glendora Avenue, Rowland Avenue, and Grand Avenue. The Baldwin Park Shuttle Teal Line runs via Ramona Boulevard, Maine Avenue, Stewart Avenue, Baldwin Park Boulevard, and Frazier Street. According to the City’s General Plan Class III Bike Lanes are planned along Baldwin Park Boulevard and Francisquito Avenue in the project area.

To determine if project-related traffic impacts would occur, a Traffic Impact Study was prepared for the proposed project by KOA in October 2019 (Appendix C). The following two intersections were analyzed during the weekday AM and PM peak-hour periods:

1. Fairgrove Avenue/Garvey Avenue
2. Frazier Street/Garvey Avenue

A significant impact is typically identified if project-related traffic would cause level of services (LOS) to deteriorate beyond a threshold limit specified by the reviewing agency. Impacts can also be significant if an intersection is already operating below the acceptable LOS and project traffic would cause a further decline in operations beyond the threshold.

The two study intersections are stop controlled, and the LOS was determined using Highway Capacity Manual (HCM) 6th edition methodology for All-Way and Partial Stop-Controlled intersections. While the City of Baldwin Park does not have established impact standards for unsignalized intersections, causing or worsening of LOS E or F conditions due to the proposed project was considered to be significant. An intersection with LOS A indicates excellent operating conditions with little delay to motorists, whereas LOS F represents congested conditions with excessive vehicle delay. The upper limit of LOS E is typically defined as the operating capacity of a roadway. **Table 3-14** defines the level of service criteria applied to the study intersections.

TABLE 3-14: ALL-WAY AND PARTIAL STOP-CONTROLLED (HCM) INTERSECTION LEVEL OF SERVICE DEFINITIONS	
LOS	Average Control Delay (sec/veh)
A	0 - 10
B	10 - 15
C	15 - 20
D	20-25
E	25-30
F	30-35

SOURCE: KOA, *Traffic Impact Study 13127 Garvey Avenue Baldwin Park*, October 2019.

Existing Intersection Level of Service (LOS). Based on the intersection lane configurations and the existing traffic volumes, vehicle delay and corresponding LOS were determined for each of the study intersections during the weekday AM and PM peak hours. **Table 3-15** summarizes the resulting vehicle delay and LOS values for existing traffic conditions.

TABLE 3-15: INTERSECTION PERFORMANCE – EXISTING CONDITIONS					
		AM Peak		PM Peak	
		Vehicle Delay (Seconds)	LOS	Vehicle Delay (Seconds)	LOS
Study Intersections /a/					
1	Fairgrove Ave. and Garvey Ave.	10.15	B	9.79	A
2	Frazier St. and Garvey Ave.	12.60	B	11.48	B

/a/Unsignalized Intersection, partial (One-way stop control), Delay values are based on controlled side street approaches and not primary roadway approaches where traffic is uncontrolled.

SOURCE: KOA, *Traffic Impact Study 13127 Garvey Avenue Baldwin Park*, October 2019.

Project Trip Generation. As shown in **Table 3-16**, the proposed project would generate 102 daily trips, including 16 vehicle trips during the AM peak-hour (12 inbound trips and four outbound trips) and 18 vehicle trips during the PM peak hour (five inbound trips and 13 outbound trips).²¹

²¹Trip generation for the proposed project was derived from rates defined by *Trip Generation, 10th Edition*, published by the Institute of Transportation Engineers.

TABLE 3-16: PROJECT TRIP GENERATION										
ITE Code	Land Use	Intensity	Units	Weekday						
				Daily Rate	AM Peak Hour			AM Peak Hour		
					Rate	In	Out	Rate	In	Out
TRIP GENERATION RATES										
180	Specialty Trade Contractor /a/	--	KSF	10.22	1.66	73%	27%	1.97	32%	68%
710	General Office	--	KSF	9.74	1.16	86%	14%	1.15	16%	84%
TRIP GENERATION TOTALS – NEW USE										
110	Specialty Trade Contractor /a/	8.058	KSF	82	13	9	4	16	5	11
710	General Office	2	KSF	19	3	3	0	2	0	2
		10		102	516	239	277	544	293	251
/a/ Includes 2,540 square feet of storage space and a 5,518 square foot showroom. SOURCE: KOA, <i>Traffic Impact Study 13127 Garvey Avenue Baldwin Park</i> , October 2019.										

Existing with Project Traffic Conditions. Project generated traffic were added to existing traffic volumes to determine “Existing with Project” traffic conditions. **Table 3- 17** summarizes the resulting vehicle delay and LOS values at the study intersections for the Existing with Project conditions. As shown, operations would not change substantially from existing conditions. All intersections would operate at LOS B or better.

TABLE 3-17: INTERSECTION PERFORMANCE – EXISTING WITH PROJECT					
Study Intersections /a/		AM Peak		PM Peak	
		Vehicle Delay (Seconds)	LOS	Vehicle Delay (Seconds)	LOS
1	Fairgrove Ave. and Garvey Ave.	10.18	B	9.82	A
2	Frazier Street and Garvey Ave.	12.73	B	11.60	B
/a/Unsignalized Intersection, partial (One-way stop control), Delay values are based on controlled side street approaches and not primary roadway approaches where traffic is uncontrolled. SOURCE: KOA, <i>Traffic Impact Study 13127 Garvey Avenue Baldwin Park</i> , October 2019.					

Future without Project Traffic Conditions. “Future without Project” conditions include ambient/background growth and future traffic conditions in the study area with area/related project trips, but without project traffic. The proposed project is anticipated to be completed by 2020 and this defined the future analysis year.

In order to acknowledge regional population and employment growth outside of the study area, an ambient/background traffic growth rate was applied to the existing (year 2019) traffic counts. An annual growth rate of one percent was used for the future scenarios. In addition to the application of the ambient traffic growth rate, traffic from related/area projects (approved and pending developments) was included as part of the year-2020 analysis. Thirteen related projects in the City of Baldwin Park were identified for inclusion in the traffic impact analysis. **Table 3-18** provides the trip generation estimates for the related/area projects that were identified during coordination with the City of Baldwin Park.

TABLE 3-18: AREA AND RELATED PROJECTS TRIP GENERATION ESTIMATE											
ID	Location	Land Use	Units	Intensity	Daily Total	AM Peak Hour			PM Peak Hour		
						Total	In	Out	Total	In	Out
1	3234 Frazier St.	Multi-family - attached condos	D.U.	10	73	5	1	4	6	4	2
2	12756, 12762, 12766 and 12770 Torch St.	Multi-family - attached condos	D.U.	24	176	11	3	3	13	8	5
3	APN 8437-013-905	Multi-family - attached condos	D.U.	23	168	11	3	3	13	8	5
4	1606 Puente Ave.	Automated Carwash	KSF	1.2	170	17	9	8	17	9	8
		Convenience Store	KSF	0.358	273	22	11	11	18	9	9
5	15000 Badillo St.	Multi-family - attached condos	1	16	117	7	2	5	9	6	3
6	3913 Stewart Ave.	Multi-family - attached condos	D.U.	4	29	2	0	2	2	1	1
7	4923-4929 Fortin St., 15138 Nubia St., & APN 8413-013-025	Single-Family	D.U.	15	142	11	3	8	15	9	6
8	15110-15120 Badillo St.	Multi-family - attached condos	12	12	88	6	1	5	7	4	3
9	14837-14839 Pacific Ave.; APNs: 8438-015-037, -043, -047, -059, -065 through -103, -060, -061, -062, -105	Single-Family	D.U.	47	444	35	9	26	47	30	17
10	13853 Garvey Ave.	711 Gas Station with Convenience Store	KSF	2.961	4,264	225	115	110	262	134	128
11	13018 Dalewood St.	Single-Family	D.U.	1	9	1	0	1	1	1	0
12	3100 Baldwin Park Blvd.	Fast Food Restaurant with Drive-Thru	KSF	4.018	1,892	161	82	79	131	68	63
13	4232 LA Rica Ave.	Multi-family - attached condos	D.U.	5	37	2	0	2	3	2	1
TOTAL					7,882	516	239	277	544	293	251
SOURCE: KOA, <i>Traffic Impact Study 13127 Garvey Avenue Baldwin Park</i> , October 2019.											

“Future without Project” traffic conditions are summarized in **Table 3-19**. As shown, the two study intersections would operate at LOS B or better during the weekday both peak periods.

TABLE 3-19: INTERSECTION PERFORMANCE FUTURE WITHOUT PROJECT					
Study Intersections /a/		AM Peak		PM Peak	
		Vehicle Delay (Seconds)	LOS	Vehicle Delay (Seconds)	LOS
1	Fairgrove Ave. and Garvey Ave.	10.20	B	9.83	A
2	Frazier St. and Garvey Ave.	13.05	B	11.86	B

/a/ Unsignalized Intersection, partial (One-way stop control), Delay values are based on controlled side street approaches and not primary roadway approaches where traffic is uncontrolled.
SOURCE: KOA, *Traffic Impact Study 13127 Garvey Avenue Baldwin Park*, October 2019.

Future with Project Traffic Conditions. “Future with Project” traffic conditions were derived by adding project trips to the “Future without Project” scenario volumes. **Table 3-20** summarizes the resulting vehicle delay and LOS values at the study intersections for future with-project traffic conditions. As shown, both intersections would continue to operate at a LOS of B or better during the AM and PM peak hour period.

TABLE 3-20: INTERSECTION PERFORMANCE FUTURE WITH PROJECT					
Study Intersections /a/		AM Peak		PM Peak	
		Vehicle Delay (Seconds)	LOS	Vehicle Delay (Seconds)	LOS
1	Fairgrove Ave. and Garvey Ave.	10.23	B	9.86	A
2	Frazier St. and Garvey Ave.	13.20	B	11.99	B

/a/ Unsignalized Intersection, partial (One-way stop control), Delay values are based on controlled side street approaches and not primary roadway approaches where traffic is uncontrolled.
SOURCE: KOA, *Traffic Impact Study 13127 Garvey Avenue Baldwin Park*, October 2019.

Determination of Traffic Impacts. Traffic impacts occur if the proposed project would result in significant changes in traffic conditions at a study location. A significant impact is typically identified if project-related traffic would cause LOS to deteriorate beyond a threshold limit specified by the reviewing agency. Impacts can also be significant if an intersection is already operating below the acceptable LOS and project traffic cause a further decline in operations beyond the threshold. As mentioned above, the City of Baldwin Park does not have established impact standards for unsignalized intersections; however, causing or worsening of LOS E or F conditions due to the proposed project was considered to be significant.

Project Traffic Impacts – Existing Plus Project. **Table 3-21** provides a summary of the proposed project’s impacts under existing conditions. Traffic impacts created by the proposed project were determined by comparing the existing scenario conditions to the existing with- Project scenario conditions. As shown, the proposed project would not create any significant traffic impacts at the study intersections under existing with-project conditions, during either the weekday AM or PM peak hour.

Project Impacts – Future with Project. **Table 3-22** provides a summary of the proposed project’s impacts under future conditions. Traffic impacts created by the proposed project were determined by comparing the future without-project conditions to the future with-project conditions. As shown, the proposed project would not create any significant traffic impacts at the study intersections under future with-project conditions, during either the weekday AM or PM peak hour. Project mitigation measures, therefore, are not recommended for future conditions.

TABLE 3-21: DETERMINATION OF PROJECT IMPACT - EXISTING WITH PROJECT CONDITIONS

Study Intersections /a/	Peak Hour	Existing (2019) Conditions		Existing (2019) + Project		Change in Delay	Sig Impact?
		Vehicle Delay (Seconds)	LOS	Vehicle Delay (Seconds)	LOS		
1 Fairgrove Ave. and Garvey Ave.	AM	10.15	B	10.18	B	0.03	No
	PM	9.79	A	9.82	A	0.03	No
2 Fairgrove Ave. and Garvey Ave.	AM	12.60	B	12.73	B	0.13	No
	PM	11.48	B	11.60	B	0.12	No

/a/ Unsignalized Intersection, partial (One-way stop control), Delay values are based on controlled side street approaches and not primary roadway approaches where traffic is uncontrolled.
SOURCE: KOA, Traffic Impact Study 13127 Garvey Avenue Baldwin Park, October 2019.

TABLE 3-22: DETERMINATION OF PROJECT IMPACT - FUTURE WITH PROJECT

Study Intersections /a/	Peak Hour	Existing (2019) Conditions		Future (2020) No Project		Future (2020) With Project		Change in Delay	Sig Impact?
		Vehicle Delay (Seconds)	LOS	Vehicle Delay (Seconds)	LOS	Vehicle Delay (Seconds)	LOS		
1 Fairgrove Ave. and Garvey Ave.	AM	10.15	B	10.20	B	10.23	B	0.03	No
	PM	9.79	A	9.83	A	9.87	A	0.04	No
2 Fairgrove Ave. and Garvey Ave.	AM	12.60	B	13.05	B	13.16	B	0.11	No
	PM	11.48	B	11.86	B	11.97	V	0.11	No

/a/ Unsignalized Intersection, partial (One-way stop control), Delay values are based on controlled side street approaches and not primary roadway approaches where traffic is uncontrolled.
SOURCE: KOA, Traffic Impact Study 13127 Garvey Avenue Baldwin Park, October 2019.

All-Way Stop Warrant Analysis. As part of the Traffic Impact Study, an all-way stop-sign warrant analysis was conducted at the study intersection of Garvey Avenue and Fairgrove Avenue using average daily traffic (ADT) volumes, radar-based speed survey data, collision data from the UC Berkeley TIMS Database, and peak-hour turning movement volumes from the main analysis data for future without-project and with-project conditions. The analysis concluded that the speed on Garvey Avenue would not exceed the threshold, and the warrant is not satisfied.

Congestion Management Program (CMP). The CMP for Los Angeles County requires that the traffic impact of individual development projects of potentially regional significance be analyzed. Per CMP Transportation Impact Analysis (TIA) Guidelines, a traffic impact analysis is conducted:

- At CMP arterial monitoring intersections, including freeway on-ramps or off-ramps, where the proposed project will add 50 or more vehicle trips during either AM or PM weekday peak hours.
- At CMP mainline freeway-monitoring locations, where the proposed project will add 150 or more trips, in either direction, during the either the AM or PM weekday peak hours.

The proposed project is not expected that 50 or more new project trips per hour would be added to the nearest CMP intersections. Therefore, no further analysis of potential CMP impacts is required. In addition, the proposed project is expected to add less than 150 new trips per hour, in either direction, to the I-10 and I-605 Freeway segments. Therefore, no further analysis of CMP freeway monitoring stations is required.

Conclusion. The proposed project would not conflict with a program plan, ordinance or policy addressing the circulation system, and impacts would be less than significant.

- b) **Less-Than-Significant Impact.** A significant impact would occur if the proposed project conflicted with Section 15064.3(b) of the CEQA Guidelines. Per CEQA Guidelines Section 15064.3(b)(1), 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”. The proposed project is within 1,000 feet of I-10 Freeway on-ramps and off-ramps.

The CEQA Guidelines criteria for determining the significance of transportation impacts are primarily focused on projects within transit priority areas and shifts the focus from driver delay to reduction of greenhouse gas emissions, creation of multimodal networks, and promotion of a mix of land uses. Vehicle miles traveled, or VMT, is a measure of the total number of miles driven to or from a development and is sometimes expressed as an average per trip or per person.

The newly adopted guidance provides that a lead agency may elect to be governed by the provisions of this section immediately. Beginning on July 1, 2020, the provisions of this section shall apply statewide. The City is currently engaged in this process and has not yet formally adopted its updated transportation significance thresholds or its updated transportation impact analysis procedures. Since the regulations of SB 743 have not been finalized or adopted by the City, delay and LOS are the measures used in Response 3.17a above, to determine the significance of transportation impacts. Therefore, the proposed project does not conflict with CEQA Guidelines Sections 15064.3, and the impacts associated with it are less than significant.

- c) **Less-Than-Significant Impact.** A significant impact would occur if the proposed project increased hazards due to geometric design features or incompatible uses. No incompatible uses, such as farm equipment are proposed, and the proposed project would not alter existing roadways nor include any hazardous design features such as sharp curves or dangerous intersections. Vehicular access to the project site would be from Garvey Avenue or via the alleyway that starts along Frazier Street and ends at Garvey Avenue. To ensure adequate visibility, the Traffic Impact Study (Appendix C) included an analysis of the sight distance coming out of the project site from the parking lot onto Garvey Avenue. Based on standards in the Caltrans Highway Design Manual, which defines sight distance for roadways based on design speeds, the stopping distance related to a 50 mile per hour design speed is 430 feet. From the project driveway, the 430 feet distance would not extend to any horizontal curves to the east of the alleyway intersection. To the west, the distance would reach the beginning of a slight curve, but visibility would not be impaired. Therefore, impacts associated with increased hazards or incompatible uses would be less than significant.

- d) **Less-Than-Significant Impact.** A significant impact would occur if the proposed project would result in inadequate emergency access. Vehicular access to the project site would be from Garvey Avenue or via the alleyway that starts along Frazier Street and ends at Garvey Avenue. The proposed project would not hinder or block emergency access to the project site or adjacent properties. The I-10 Freeway, located less than 100 feet south of the project site, is the nearest emergency/disaster route to the project site and is considered a Freeway Disaster Route by the Los Angeles County Department of Public Works. The proposed project does not involve any activities that would require temporary or permanent closure of I-10 Freeway, and emergency vehicle access would be maintained during the construction and operation of the proposed project. Access to the project site would also comply with the Baldwin Park Fire Department’s (BPDFD) requirements regarding fire emergency access. Therefore, impacts associated with inadequate emergency access would be less than significant.

	Potentially Significant Impact	Less-Than- Significant Impact with Mitigation Incorporated	Less-Than- Significant Impact	No Impact
3.18 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:				
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), or	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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 Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

a) **Less-Than-Significant Impact with Mitigation Incorporated.** A significant impact would occur if the proposed project would cause a substantial adverse change in the significance of a tribal cultural resource listed or eligible for listing in the California Resources of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k). The project site is currently vacant, and there are no historic resources on, adjacent to, or in proximity to the project site listed in the California Register of Historical Resources pursuant to in Section 15064.5. The City does not have any landmarks listed under its historic preservation program as defined in Public Resources Code Section 5020.1(k). However, in compliance with Assembly Bill 52, Native American tribes traditionally and culturally affiliated with the geographic area of the project site were notified of the proposed project on July 22, 2019. The tribes notified included the Gabrieleno Band of Mission Indians – Kizh Nation, the Gabrieleno Tongva Tribe and the Sobaba Band of Luiseno Indians. To ensure that any inadvertent discovery of tribal cultural resources encountered during ground-disturbing activities are properly documented, salvaged, and protected, the Kizh Nation recommended that mitigation measures be imposed on the proposed project. Therefore, with implementation of Mitigation Measures **TRC-1** through **TRC-3**, impacts related to the tribal cultural resources would be less than significant.

b) **Less-Than-Significant Impact with Mitigation Incorporated.** A significant impact would occur if the proposed project would cause a substantial adverse change in the significance of a tribal cultural resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in Public Resources Code Section 5024.1(c). As discussed above, Native American tribes affiliated with the geographic area of the project site were notified of the proposed project. The Kizh Nation recommended that mitigation measures be imposed on the proposed project to ensure that any inadvertent discovery of tribal cultural resources encountered during ground-disturbing activities are properly documented, salvaged, and protected. Therefore, with implementation of Mitigation Measures **TRC-1** through **TRC-3**, impacts related to the tribal cultural resources would be less than significant.

MITIGATION MEASURES

TCR-1 The project applicant shall be required to retain and compensate for the services of a Tribal monitor/consultant who is both approved by the Gabrieleño Band of Mission Indians-Kizh Nation Tribal Government and is listed under the Native American Heritage Commission’s Tribal Contact list for the area of the project location. The tribal monitor/consultant shall only be

present on-site during the construction phases that involve ground disturbing activities. Ground disturbing activities are defined by the Gabrieleño Band of Mission Indians-Kizh Nation as activities that may include, but are not limited to, pavement removal, pot-holing or auguring, grubbing, tree removals, boring, grading, excavation, drilling, and trenching, within the project area. The tribal monitor/consultant shall complete daily monitoring logs that will provide descriptions of the day's activities, including construction activities, locations, soil, and any cultural materials identified. The on-site monitoring shall end when the project site grading and excavation activities are completed, or when the tribal representatives and monitor/consultant have indicated that the site has a low potential for impacting Tribal Cultural Resources.

TCR-2 Upon discovery of any archaeological resources, construction activities shall cease in the immediate vicinity of the find until the find can be assessed. All archaeological resources unearthed by project construction activities shall be evaluated by the qualified archaeologist and Tribal monitor/consultant approved by the Gabrieleño Band of Mission Indians-Kizh Nation. If the resources are Native American in origin, the Gabrieleño Band of Mission Indians-Kizh Nation shall coordinate with the landowner regarding treatment and curation of these resources. Typically, the Tribe will request reburial or preservation for educational purposes. Work may continue on other parts of the project while evaluation and, if necessary, mitigation takes place.

If a resource is determined by the qualified archaeologist to constitute a "historical resource" or "unique archaeological resource", time allotment and funding sufficient to allow for implementation of avoidance measures, or appropriate mitigation, must be available. The treatment plan established for the resources shall be in accordance with CEQA Guidelines Section 15064.5(f) for historical resources and Public Resources Code Section 21083.2(b) for unique archaeological resources. Preservation in place (i.e., avoidance) is the preferred manner of treatment. If preservation in place is not feasible, treatment may include implementation of archaeological data recovery excavations to remove the resource along with subsequent laboratory processing and analysis. Any historic archaeological material that is not Native American in origin shall be curated at a public, non-profit institution with a research interest in the materials, such as the Natural History Museum of Los Angeles County or the Fowler Museum, if such an institution agrees to accept the material. If no institution accepts the archaeological material, they shall be offered to a local school or historical society in the area for educational purposes.

TCR-3 Native American human remains are defined in Public Resources Code Section 5097.98 (d)(1) as an inhumation or cremation, and in any state of decomposition or skeletal completeness. Funerary objects, called associated grave goods in Public Resources Code Section 5097.98, are also to be treated according to this statute. Health and Safety Code 7050.5 dictates that any discoveries of human skeletal material shall be immediately reported to the County Coroner and excavation halted until the coroner has determined the nature of the remains. If the coroner recognizes the human remains to be those of a Native American or has reason to believe that they are those of a Native American, he or she shall contact, by telephone within 24 hours, the Native American Heritage Commission and Public Resources Code Section 5097.98 shall be followed.

Upon discovery, the tribal and/or archaeological monitor/consultant/consultant will immediately divert work at minimum of 150 feet and place an exclusion zone around the burial. The monitor/consultant(s) will then notify the tribe, the qualified lead archaeologist, and the construction manager who will call the coroner. Work will continue to be diverted while the coroner determines whether the remains are Native American. The discovery is to be kept confidential and secure to prevent any further disturbance. If the finds are determined to be Native American, the coroner will notify the Native American Heritage Commission as mandated by state law who will then appoint a Most Likely Descendent (MLD).

	Potentially Significant Impact	Less-Than-Significant Impact with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
3.19 UTILITIES AND SERVICE SYSTEMS - Would the project:				
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

a) **Less-Than-Significant Impact.** A significant impact would occur if the proposed project would require or result in the relocation or construction of new utilities facilities or service systems.

Water and Wastewater. During its operation, the proposed project's commercial uses would increase the amount of wastewater generated on the project site, however it would not require the construction of new water or wastewater treatment facilities or the expansion of existing facilities. Wastewater is treated at the San Jose Creek Water Reclamation Plant (WRP) near the City of Whittier. Los Angeles County Sanitation District (LACSD) indicates the San Jose Creek WRP is currently operating with a current flow far below its maximum capacity; the district has adequate capacity to accommodate development associated with implementation of the proposed project.²² Policy 1.1 to work closely with local water and sewer districts in determining and meeting community needs for water and sewer service and Policy 1.2 to permit development densities and intensities no higher than the City's ability to provide the necessary public services, utilities, street capacities, and recreational opportunities required for the areas affected by development.²³ With adherence to the policies identified in the existing Open Space and Conservation Element of the General Plan, impacts related to the expansion of water and wastewater facilities would be less than significant.

Stormwater. A significant impact could occur if the volume of stormwater runoff would increase to a level exceeding the capacity of the existing storm drain system. The project site is in a developed of the City of Baldwin Park that is currently served by stormwater infrastructure. Per Chapter 52 of the BPMC, the proposed project would be designed to maintain existing drainage patters and ensure that no increase in runoff from the project site into the storm drain system would occur as compared to existing conditions, thereby minimizing potential effects on the City's storm

²²LACSD, *LACSD Website - Who We Are And What Can We Do For You*, https://www.lacsd.org/wastewater/wastewater_services/proposition_218/facilities.asp, accessed on July 30, 2019.

²³The City of Baldwin Park, *Open Space and Conservation Element of the 2020 General Plan*, 2002.

drain system. No new improvements to the existing storm drain system are required to adequately accommodate storm water runoff from the project site. The amount of impervious surface area onsite would increase with development of the proposed uses, access drive, driveways, and other paved surfaces, thereby increasing the potential for stormwater runoff from the site. However, given that the site is less than one acre in area, the amount of impermeable surfaces resulting from the proposed project would not substantially change the volume of stormwater runoff. Consequently, the proposed project would not exacerbate any existing deficiencies in the storm drain system or provide substantial additional sources of polluted runoff. Therefore, impacts related to stormwater drainage facilities would be less than significant, and no mitigation is required.

Electrical Power, Natural Gas, Telecommunications. A significant impact would occur if the proposed project resulted in or required the construction of new electrical power, natural gas, and telecommunications facilities. The project site is in a developed, urbanized portion of the City of Baldwin Park that is served by existing electrical power, natural gas, and telecommunications services. The project would develop a commercial building adjacent to other existing commercial operations and uses. New electricity, gas, and telecommunications connections would be established for the project; however, no substantial electrical, gas, or telecommunications infrastructure is present on or adjacent to the project site that would need to be relocated to accommodate the project. Therefore, impacts associated with electric power, natural gas, or telecommunications facilities would be less than significant.

- b) **Less-Than-Significant Impact.** A significant impact would occur if the proposed project would increase water usage such that the project site would not have enough water supplies during normal, dry and multiple dry years. The project site is located within the San Gabriel Valley Water Company's (SGVWC) service area, which supplies water for approximately 481,000 people. According to SGVWC's 2015 Urban Water Management Plan, SGVWC's projected water demands are anticipated to be met during normal, dry, and multiple dry years over the next twenty years. The proposed project is a less-than-one-acre site and proposes no water-intensive activities or uses in or around the commercial facility. Therefore, the proposed project would not exceed SGVWC's capacity to meet water demand for the project site or surrounding properties. Therefore, there would be a less-than-significant impact.
- c) **Less-Than-Significant Impact.** A significant impact would occur if the proposed project's water demand exceeded the capacity of the project site's wastewater treatment provider. Wastewater would continue to be treated at the San Jose Creek Water Reclamation Plan (SJCWRP) near the City of Wittier. It is anticipated that the proposed project's wastewater demand would be met, and no new entitlements or resources would be required to meet the Project's expected wastewater needs. The SJCWRP's current flow is far below capacity and given that the proposed project is a commercial development less than one acre in area, it is highly unlikely the proposed project would cause SJCWRP's flow to rate to exceed capacity. Therefore, impacts associated with wastewater treatment provider capacity would be less than significant.
- d) **Less-Than-Significant Impact.** A significant impact would occur if the proposed project would generate solid waste in excess of State or local standards, the capacity of local infrastructure, or State and local solid waste reduction goals. During construction, the proposed project anticipates that a maximum of 32 cubic yards of excavated material would be hauled off site for disposal during construction activities. During operation, the proposed project would produce waste similar to that of a typical commercial building. One of the main goals of the Open Space and Conservation Element of the City's General Plan is to reduce the amount of solid waste through the City's Household Hazardous Waste and Source Reduction and Recycling Elements goals and policies. Compliance with these policies and County waste reduction programs and policies would reduce the volume of solid waste entering landfills. Waste Management, the City's waste hauler, utilizes the El Sobrante landfill located in the City of Corona. At current capacity, El Sobrante's maximum

daily permitted throughput is 16,054 tons per day of solid waste.²⁴ The landfill is currently 31.4 percent filled with a remaining capacity of 143,977,170 cubic yards from its maximum permitted capacity of 209,910,000 cubic yards and anticipates a closing date of January 1, 2051.²⁵ The El Sobrante landfill therefore has enough permitted capacity to accommodate the proposed project's waste disposal needs. The proposed project would be required to comply with applicable state and local regulations regarding solid waste disposal. As a result, the project is not anticipated to significantly impact landfill serving capacities either daily or throughout the landfill lifetime and impacts to landfill capacity would be less than significant.

- e) **Less-Than-Significant Impact.** A significant impact would occur if the proposed project would not comply with federal, state, and local management and reduction statutes and regulations related to solid waste. During both construction and operation, the proposed project would be required to comply with all applicable federal, state, and local statutes and regulations pertaining to solid waste disposal. There is no element in the proposed project that would be outside of compliance. Therefore, impacts associated with federal, state, and local management and reduction statutes and regulations related to solid waste would be less than significant.

²⁴Cal Recycle, *SWIS Facility Detail*, <https://www2.calrecycle.ca.gov/SWFacilities/Directory/33-AA-0217/Detail/>, accessed July 30, 2019.

²⁵*Ibid.*

	Potentially Significant Impact	Less-Than- Significant Impact with Mitigation Incorporated	Less-Than- Significant Impact	No Impact
3.20 WILDFIRE - If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

a) **No Impact.** A significant impact would occur if the proposed project would substantially impair an adopted emergency response plan or emergency evacuation plan. The project site is not located within or near a state responsibility area or land classified as a very high fire hazard severity zone.²⁶ The California Public Utilities Commission FireMap indicates that the nearest SRA or local responsibility area (LRA) classified as a Very High Fire Hazard Severity Zone (VHFHS Zone) to the north of the project site is the Santa Fe Dam Recreation Area.²⁷ The closest VHFHS Zone southwest of the proposed project is located at the border of the Puente Hills Landfill, approximately 2.6 miles away. Prevailing winds in the vicinity of project site most frequently blow from the south-west at an average between eight to 13 miles per hour. Should a fire occur at the Puente Hills Landfill, it is possible that prevailing winds could expose project occupants to smoke and other pollutants from wildfires. However, the project site is in a highly developed urban area and thus the risk of the project site being exposed to uncontrollable wildfires is low. In addition, the proposed project would not impair the City’s adopted emergency response plan or emergency evacuation plan and shall maintain compliance with the Baldwin Park Fire Department (BPDFD) to ensure adequate emergency access to and from the project site.

The I-10 Freeway, located less than 100 feet south of the project site, is the nearest emergency/disaster route to the project site and is considered a Freeway Disaster Route by the Los Angeles County Department of Public Works. The proposed project does not involve any activities that would require temporary or permanent closure of I-10 Freeway, and emergency vehicle access would be maintained during the construction and operation of the proposed project. Access to the project site would also comply with the Baldwin Park Fire Department’s (BPDFD) requirements regarding fire emergency access.

b) **No Impact.** A significant impact would occur if the proposed project would, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire due to slope, prevailing winds, and other factors. As discussed above, the proposed project is not located in or near state responsibility areas or lands classified as

²⁶Property I.D., *Mandatory Commercial Disclosure Report - Environmental Hazards Report*, November 14, 2016.

²⁷California Department of Forestry and Fire Protection, *Fire Hazard Severity Zones in LRA*,

<https://osfm.fire.ca.gov/divisions/wildfire-prevention-planning-engineering/wildland-hazards-building-codes/fire-hazard-severity-zones-maps/>, accessed July 30, 2019.

very high fire hazard severity zones. The project site is in a highly developed urban area and thus the risk of the project site being exposed to uncontrollable wildfires is low. The proposed project would not exacerbate wildfire risks. Therefore, no impacts would occur.

- c) **No Impact.** A significant impact would occur if the proposed project required the installation or maintenance of associated infrastructure that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment. The project site is not located in or near state responsibility areas or lands classified as very high fire hazard severity zones and would not require the installation or maintenance of roads, fuel breaks, emergency water sources, or power lines that may exacerbate fire risk or result in temporary or ongoing impacts to the environment. Existing utilities would adequately serve the proposed project. Therefore, no impacts would occur.
- d) **No Impact.** A significant impact would occur if the proposed project would 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. The proposed project is located in a developed, urbanized area, and surrounded primarily by commercial and residential uses. There are no slopes or hills in the vicinity of the project site that would have the potentially expose people or structures to significant risks as a result of runoff, post-fire slope instability, or drainage changes. Therefore, no impacts would occur.

	Potentially Significant Impact	Less-Than-Significant Impact with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
3.21 MANDATORY FINDINGS OF SIGNIFICANCE				
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

a) **Less-Than-Significant Impact with Mitigation Incorporated.** A significant impact would occur if the proposed project would cause the loss or destruction of individuals of a species or degrade a sensitive habitat. The proposed project is located within a highly urbanized area, and while currently vacant, the project site was previously developed. The proposed project would have minimal potential to impact sensitive wildlife species and natural communities during construction activities. Biological impacts range from no impact to less than significant and no mitigation would be required. Construction activities which will require the removal of the two on-site trees shall comply with the BPMC Section 153.165, would protect trees adjacent to the project site. The project site does not contain riparian habitat or other sensitive natural communities and does not contain wetlands. The project would adhere to the federal Migratory Bird Treaty Act.

The proposed project would involve earthmoving activities which could potentially unearth or disturb prehistoric archaeological resources. Such actions could unearth, expose, or disturb subsurface paleontological, archaeological, historical, or Native American resources that were not observable on the surface. However, with the incorporation of Mitigation Measures **BR-1**, **GS-1** and **TCR-1** through **TRC 3**, potential impacts to paleontological or cultural resources that represent major periods of California history or prehistory would be reduced to less than significant.

b) **Less-Than-Significant Impact with Mitigation Incorporated.** A significant impact would occur if the proposed project, in conjunction with related projects, would result in impacts that are less than significant when viewed separately but significant when viewed together. A list of related projects within the vicinity of the proposed project is provided in the Traffic Impact Study included as Appendix C. Although projects may be constructed in the vicinity of the proposed project, the impacts of each additional project will be evaluated and mitigated on a case by case basis; therefore, the cumulative impacts to which the proposed project would contribute would be less than significant. In addition, all potential impacts of the proposed project would be reduced to less-than-significant levels with implementation of the mitigation measures included in this Initial Study and compliance with existing regulations. None of these potential impacts are considered cumulatively considerable. Related projects would be subject to the same regulations. Therefore, with mitigation

measures incorporated, the proposed project, in conjunction with related projects, would not result in significant cumulatively considerable impacts.

- c) **Less-Than-Significant Impact with Mitigation Incorporated.** A significant impact may occur if the proposed project has the potential to cause substantial adverse effects on human beings, either directly or indirectly. All potential impacts of the proposed project have been identified, and mitigation measures have been prescribed, where applicable, to reduce all potential impacts to less-than-significant levels. Upon implementation of mitigation measures included in this Initial Study and compliance with existing regulations, the proposed project would not have the potential to result in substantial adverse impacts on human beings either directly or indirectly.

4.0 PERSONS AND SOURCES CONSULTED

The following agencies, firms and individuals were involved in the preparation of this Initial Study:

4.1 LEAD AGENCY

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4.4 REFERENCES

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Appendix A

Air Quality Calculations

13127 Garvey Avenue - Los Angeles-South Coast County, Annual

**13127 Garvey Avenue
Los Angeles-South Coast County, Annual**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	2.00	1000sqft	0.05	2,000.00	0
Unrefrigerated Warehouse-No Rail	2.54	1000sqft	0.06	2,540.00	0
Other Non-Asphalt Surfaces	0.09	Acre	0.09	3,920.40	0
Parking Lot	35.00	Space	0.32	11,324.00	0
Home Improvement Superstore	5.52	1000sqft	0.13	5,518.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	33
Climate Zone	9			Operational Year	2020
Utility Company	Southern California Edison				
CO2 Intensity (lb/MW hr)	702.44	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

13127 Garvey Avenue - Los Angeles-South Coast County, Annual

Project Characteristics -

Land Use - Total lot acreage equals 0.65 acres

Construction Phase - Demolition involves removal of 2 trees on site. Grading will be minimal.

Trips and VMT - Updated BC worker trips

Demolition -

Grading - 0.5 acres of ground disturbance per day for four days.

Vehicle Trips - Total daily trips equals 102

Sequestration -

Construction Off-road Equipment Mitigation - Proposed project would include forklifts powered with natural gas

Area Mitigation - Compliance with SCAQMD Rule 1113

Energy Mitigation - Accounting for 2016 Title 24 Standards

Water Mitigation -

Operational Off-Road Equipment - Assumed 2 forklifts for moving materials around the site.

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Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	100	50
tblConstEquipMitigation	FuelType	Diesel	CNG
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstructionPhase	NumDays	100.00	175.00
tblConstructionPhase	NumDays	10.00	1.00
tblConstructionPhase	NumDays	2.00	4.00
tblGrading	AcresOfGrading	0.00	2.00
tblGrading	MaterialExported	0.00	32.00
tblLandUse	LandUseSquareFeet	14,000.00	11,324.00
tblLandUse	LandUseSquareFeet	5,520.00	5,518.00
tblOperationalOffRoadEquipment	OperFuelType	Diesel	CNG
tblSequestration	NumberOfNewTrees	0.00	1.00
tblTripsAndVMT	WorkerTripNumber	10.00	20.00
tblVehicleTrips	ST_TR	2.46	10.00
tblVehicleTrips	ST_TR	56.72	14.86
tblVehicleTrips	ST_TR	1.68	0.00
tblVehicleTrips	SU_TR	1.05	10.00
tblVehicleTrips	SU_TR	55.80	14.86
tblVehicleTrips	SU_TR	1.68	0.00
tblVehicleTrips	WD_TR	11.03	10.00
tblVehicleTrips	WD_TR	30.74	14.86
tblVehicleTrips	WD_TR	1.68	0.00

2.0 Emissions Summary

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2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.0117	0.1105	0.0934	1.6000e-004	5.3600e-003	6.5300e-003	0.0119	1.6400e-003	6.0600e-003	7.7000e-003	0.0000	14.3856	14.3856	3.3900e-003	0.0000	14.4704
2020	0.1284	0.7619	0.6823	1.2000e-003	0.0199	0.0428	0.0627	5.3200e-003	0.0395	0.0448	0.0000	106.5326	106.5326	0.0273	0.0000	107.2157
Maximum	0.1284	0.7619	0.6823	1.2000e-003	0.0199	0.0428	0.0627	5.3200e-003	0.0395	0.0448	0.0000	106.5326	106.5326	0.0273	0.0000	107.2157

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	9.8000e-003	0.1012	0.1923	1.6000e-004	3.5500e-003	5.2700e-003	8.8200e-003	1.0300e-003	4.9100e-003	5.9400e-003	0.0000	14.9233	14.9233	3.5600e-003	0.0000	15.0123
2020	0.1138	0.7218	1.6749	1.2000e-003	0.0199	0.0336	0.0535	5.3200e-003	0.0311	0.0364	0.0000	111.4061	111.4061	0.0289	0.0000	112.1286
Maximum	0.1138	0.7218	1.6749	1.2000e-003	0.0199	0.0336	0.0535	5.3200e-003	0.0311	0.0364	0.0000	111.4061	111.4061	0.0289	0.0000	112.1286

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	11.78	5.66	-140.68	0.00	7.18	21.27	16.53	8.76	20.83	19.23	0.00	-4.48	-4.48	-5.70	0.00	-4.48

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Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	12-2-2019	3-1-2020	0.3368	0.3109
2	3-2-2020	6-1-2020	0.3390	0.3162
3	6-2-2020	9-1-2020	0.2999	0.2833
		Highest	0.3390	0.3162

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0423	1.0000e-005	5.8000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1200e-003	1.1200e-003	0.0000	0.0000	1.2000e-003
Energy	1.7000e-004	1.5700e-003	1.3200e-003	1.0000e-005		1.2000e-004	1.2000e-004		1.2000e-004	1.2000e-004	0.0000	38.1438	38.1438	1.5400e-003	3.4000e-004	38.2843
Mobile	0.0285	0.1309	0.3059	9.0000e-004	0.0671	9.4000e-004	0.0680	0.0180	8.8000e-004	0.0189	0.0000	82.6991	82.6991	5.0300e-003	0.0000	82.8249
Offroad	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	13.2878	0.0000	13.2878	0.7853	0.0000	32.9199
Water						0.0000	0.0000		0.0000	0.0000	0.4288	7.2663	7.6952	0.0444	1.1000e-003	9.1322
Total	0.0709	0.1325	0.3078	9.1000e-004	0.0671	1.0600e-003	0.0681	0.0180	1.0000e-003	0.0190	13.7166	128.1104	141.8270	0.8362	1.4400e-003	163.1626

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2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0417	1.0000e-005	5.8000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1200e-003	1.1200e-003	0.0000	0.0000	1.2000e-003
Energy	1.5000e-004	1.4000e-003	1.1800e-003	1.0000e-005		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004	0.0000	25.3484	25.3484	1.0100e-003	2.3000e-004	25.4427
Mobile	0.0285	0.1309	0.3059	9.0000e-004	0.0671	9.4000e-004	0.0680	0.0180	8.8000e-004	0.0189	0.0000	82.6991	82.6991	5.0300e-003	0.0000	82.8249
Offroad	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	13.2878	0.0000	13.2878	0.7853	0.0000	32.9199
Water						0.0000	0.0000		0.0000	0.0000	0.2359	4.7427	4.9786	0.0244	6.1000e-004	5.7717
Total	0.0703	0.1323	0.3077	9.1000e-004	0.0671	1.0500e-003	0.0681	0.0180	9.9000e-004	0.0190	13.5237	112.7913	126.3150	0.8158	8.4000e-004	146.9604

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.85	0.13	0.05	0.00	0.00	0.94	0.01	0.00	1.00	0.05	1.41	11.96	10.94	2.45	41.67	9.93

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2.3 Vegetation

Vegetation

	CO2e
Category	MT
New Trees	0.7080
Total	0.7080

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	12/2/2019	12/2/2019	5	1	
2	Grading	Grading	12/3/2019	12/6/2019	5	4	
3	Building Construction	Building Construction	12/9/2019	8/7/2020	5	175	
4	Paving	Paving	8/3/2020	8/7/2020	5	5	
5	Architectural Coating	Architectural Coating	8/3/2020	8/7/2020	5	5	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 2

Acres of Paving: 0.41

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Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 15,087; Non-Residential Outdoor: 5,029; Striped Parking Area: 915 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	1.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Rubber Tired Dozers	1	1.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	4	10.00	0.00	4.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	20.00	4.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	2.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

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3.1 Mitigation Measures Construction

Use Alternative Fuel for Construction Equipment

Water Exposed Area

3.2 Demolition - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					4.1000e-004	0.0000	4.1000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.8000e-004	4.3000e-003	3.8500e-003	1.0000e-005		2.7000e-004	2.7000e-004		2.6000e-004	2.6000e-004	0.0000	0.5260	0.5260	1.0000e-004	0.0000	0.5285
Total	4.8000e-004	4.3000e-003	3.8500e-003	1.0000e-005	4.1000e-004	2.7000e-004	6.8000e-004	6.0000e-005	2.6000e-004	3.2000e-004	0.0000	0.5260	0.5260	1.0000e-004	0.0000	0.5285

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3.2 Demolition - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.0000e-005	6.3000e-004	1.3000e-004	0.0000	3.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.1557	0.1557	1.0000e-005	0.0000	0.1560
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	2.0000e-005	2.3000e-004	0.0000	5.0000e-005	0.0000	6.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0527	0.0527	0.0000	0.0000	0.0527
Total	5.0000e-005	6.5000e-004	3.6000e-004	0.0000	8.0000e-005	0.0000	1.0000e-004	2.0000e-005	0.0000	2.0000e-005	0.0000	0.2084	0.2084	1.0000e-005	0.0000	0.2087

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.6000e-004	0.0000	1.6000e-004	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.8000e-004	4.3000e-003	3.8500e-003	1.0000e-005		2.7000e-004	2.7000e-004		2.6000e-004	2.6000e-004	0.0000	0.5260	0.5260	1.0000e-004	0.0000	0.5285
Total	4.8000e-004	4.3000e-003	3.8500e-003	1.0000e-005	1.6000e-004	2.7000e-004	4.3000e-004	2.0000e-005	2.6000e-004	2.8000e-004	0.0000	0.5260	0.5260	1.0000e-004	0.0000	0.5285

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3.2 Demolition - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.0000e-005	6.3000e-004	1.3000e-004	0.0000	3.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.1557	0.1557	1.0000e-005	0.0000	0.1560
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	2.0000e-005	2.3000e-004	0.0000	5.0000e-005	0.0000	6.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0527	0.0527	0.0000	0.0000	0.0527
Total	5.0000e-005	6.5000e-004	3.6000e-004	0.0000	8.0000e-005	0.0000	1.0000e-004	2.0000e-005	0.0000	2.0000e-005	0.0000	0.2084	0.2084	1.0000e-005	0.0000	0.2087

3.3 Grading - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.5700e-003	0.0000	2.5700e-003	9.4000e-004	0.0000	9.4000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.9100e-003	0.0172	0.0154	2.0000e-005		1.0700e-003	1.0700e-003		1.0200e-003	1.0200e-003	0.0000	2.1041	2.1041	4.0000e-004	0.0000	2.1141
Total	1.9100e-003	0.0172	0.0154	2.0000e-005	2.5700e-003	1.0700e-003	3.6400e-003	9.4000e-004	1.0200e-003	1.9600e-003	0.0000	2.1041	2.1041	4.0000e-004	0.0000	2.1141

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3.3 Grading - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-004	8.0000e-005	9.1000e-004	0.0000	2.2000e-004	0.0000	2.2000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.2107	0.2107	1.0000e-005	0.0000	0.2109
Total	1.0000e-004	8.0000e-005	9.1000e-004	0.0000	2.2000e-004	0.0000	2.2000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.2107	0.2107	1.0000e-005	0.0000	0.2109

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.0000e-003	0.0000	1.0000e-003	3.7000e-004	0.0000	3.7000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.9100e-003	0.0172	0.0154	2.0000e-005		1.0700e-003	1.0700e-003		1.0200e-003	1.0200e-003	0.0000	2.1040	2.1040	4.0000e-004	0.0000	2.1141
Total	1.9100e-003	0.0172	0.0154	2.0000e-005	1.0000e-003	1.0700e-003	2.0700e-003	3.7000e-004	1.0200e-003	1.3900e-003	0.0000	2.1040	2.1040	4.0000e-004	0.0000	2.1141

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3.3 Grading - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-004	8.0000e-005	9.1000e-004	0.0000	2.2000e-004	0.0000	2.2000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.2107	0.2107	1.0000e-005	0.0000	0.2109
Total	1.0000e-004	8.0000e-005	9.1000e-004	0.0000	2.2000e-004	0.0000	2.2000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.2107	0.2107	1.0000e-005	0.0000	0.2109

3.4 Building Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	8.1400e-003	0.0835	0.0641	1.0000e-004		5.1500e-003	5.1500e-003		4.7300e-003	4.7300e-003	0.0000	8.6955	8.6955	2.7500e-003	0.0000	8.7643
Total	8.1400e-003	0.0835	0.0641	1.0000e-004		5.1500e-003	5.1500e-003		4.7300e-003	4.7300e-003	0.0000	8.6955	8.6955	2.7500e-003	0.0000	8.7643

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3.4 Building Construction - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.4000e-004	4.0200e-003	1.1000e-003	1.0000e-005	2.1000e-004	3.0000e-005	2.4000e-004	6.0000e-005	2.0000e-005	9.0000e-005	0.0000	0.8502	0.8502	6.0000e-005	0.0000	0.8516
Worker	8.5000e-004	7.1000e-004	7.7200e-003	2.0000e-005	1.8600e-003	2.0000e-005	1.8800e-003	4.9000e-004	2.0000e-005	5.1000e-004	0.0000	1.7907	1.7907	6.0000e-005	0.0000	1.7923
Total	9.9000e-004	4.7300e-003	8.8200e-003	3.0000e-005	2.0700e-003	5.0000e-005	2.1200e-003	5.5000e-004	4.0000e-005	6.0000e-004	0.0000	2.6409	2.6409	1.2000e-004	0.0000	2.6439

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.2800e-003	0.0742	0.1630	1.0000e-004		3.8900e-003	3.8900e-003		3.5900e-003	3.5900e-003	0.0000	9.2332	9.2332	2.9200e-003	0.0000	9.3063
Total	6.2800e-003	0.0742	0.1630	1.0000e-004		3.8900e-003	3.8900e-003		3.5900e-003	3.5900e-003	0.0000	9.2332	9.2332	2.9200e-003	0.0000	9.3063

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3.4 Building Construction - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.4000e-004	4.0200e-003	1.1000e-003	1.0000e-005	2.1000e-004	3.0000e-005	2.4000e-004	6.0000e-005	2.0000e-005	9.0000e-005	0.0000	0.8502	0.8502	6.0000e-005	0.0000	0.8516
Worker	8.5000e-004	7.1000e-004	7.7200e-003	2.0000e-005	1.8600e-003	2.0000e-005	1.8800e-003	4.9000e-004	2.0000e-005	5.1000e-004	0.0000	1.7907	1.7907	6.0000e-005	0.0000	1.7923
Total	9.9000e-004	4.7300e-003	8.8200e-003	3.0000e-005	2.0700e-003	5.0000e-005	2.1200e-003	5.5000e-004	4.0000e-005	6.0000e-004	0.0000	2.6409	2.6409	1.2000e-004	0.0000	2.6439

3.4 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0681	0.6993	0.5836	9.0000e-004		0.0413	0.0413		0.0380	0.0380	0.0000	79.0478	79.0478	0.0256	0.0000	79.6869
Total	0.0681	0.6993	0.5836	9.0000e-004		0.0413	0.0413		0.0380	0.0380	0.0000	79.0478	79.0478	0.0256	0.0000	79.6869

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3.4 Building Construction - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.1500e-003	0.0342	9.2700e-003	8.0000e-005	1.9900e-003	1.6000e-004	2.1500e-003	5.7000e-004	1.5000e-004	7.3000e-004	0.0000	7.8503	7.8503	5.0000e-004	0.0000	7.8627
Worker	7.2900e-003	5.8800e-003	0.0650	1.8000e-004	0.0173	1.5000e-004	0.0175	4.6000e-003	1.4000e-004	4.7300e-003	0.0000	16.1373	16.1373	5.1000e-004	0.0000	16.1501
Total	8.4400e-003	0.0401	0.0743	2.6000e-004	0.0193	3.1000e-004	0.0196	5.1700e-003	2.9000e-004	5.4600e-003	0.0000	23.9876	23.9876	1.0100e-003	0.0000	24.0128

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0534	0.6592	1.5761	9.0000e-004		0.0320	0.0320		0.0296	0.0296	0.0000	83.9213	83.9213	0.0271	0.0000	84.5998
Total	0.0534	0.6592	1.5761	9.0000e-004		0.0320	0.0320		0.0296	0.0296	0.0000	83.9213	83.9213	0.0271	0.0000	84.5998

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3.4 Building Construction - 2020**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.1500e-003	0.0342	9.2700e-003	8.0000e-005	1.9900e-003	1.6000e-004	2.1500e-003	5.7000e-004	1.5000e-004	7.3000e-004	0.0000	7.8503	7.8503	5.0000e-004	0.0000	7.8627
Worker	7.2900e-003	5.8800e-003	0.0650	1.8000e-004	0.0173	1.5000e-004	0.0175	4.6000e-003	1.4000e-004	4.7300e-003	0.0000	16.1373	16.1373	5.1000e-004	0.0000	16.1501
Total	8.4400e-003	0.0401	0.0743	2.6000e-004	0.0193	3.1000e-004	0.0196	5.1700e-003	2.9000e-004	5.4600e-003	0.0000	23.9876	23.9876	1.0100e-003	0.0000	24.0128

3.5 Paving - 2020**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.9300e-003	0.0181	0.0178	3.0000e-005		9.9000e-004	9.9000e-004		9.2000e-004	9.2000e-004	0.0000	2.3482	2.3482	6.8000e-004	0.0000	2.3653
Paving	4.2000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	2.3500e-003	0.0181	0.0178	3.0000e-005		9.9000e-004	9.9000e-004		9.2000e-004	9.2000e-004	0.0000	2.3482	2.3482	6.8000e-004	0.0000	2.3653

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3.5 Paving - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.1000e-004	1.7000e-004	1.8500e-003	1.0000e-005	4.9000e-004	0.0000	5.0000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.4596	0.4596	1.0000e-005	0.0000	0.4600
Total	2.1000e-004	1.7000e-004	1.8500e-003	1.0000e-005	4.9000e-004	0.0000	5.0000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.4596	0.4596	1.0000e-005	0.0000	0.4600

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.9300e-003	0.0181	0.0178	3.0000e-005		9.9000e-004	9.9000e-004		9.2000e-004	9.2000e-004	0.0000	2.3482	2.3482	6.8000e-004	0.0000	2.3653
Paving	4.2000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	2.3500e-003	0.0181	0.0178	3.0000e-005		9.9000e-004	9.9000e-004		9.2000e-004	9.2000e-004	0.0000	2.3482	2.3482	6.8000e-004	0.0000	2.3653

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3.5 Paving - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.1000e-004	1.7000e-004	1.8500e-003	1.0000e-005	4.9000e-004	0.0000	5.0000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.4596	0.4596	1.0000e-005	0.0000	0.4600
Total	2.1000e-004	1.7000e-004	1.8500e-003	1.0000e-005	4.9000e-004	0.0000	5.0000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.4596	0.4596	1.0000e-005	0.0000	0.4600

3.6 Architectural Coating - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0487					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.1000e-004	4.2100e-003	4.5800e-003	1.0000e-005		2.8000e-004	2.8000e-004		2.8000e-004	2.8000e-004	0.0000	0.6383	0.6383	5.0000e-005	0.0000	0.6396
Total	0.0494	4.2100e-003	4.5800e-003	1.0000e-005		2.8000e-004	2.8000e-004		2.8000e-004	2.8000e-004	0.0000	0.6383	0.6383	5.0000e-005	0.0000	0.6396

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3.6 Architectural Coating - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-005	2.0000e-005	2.1000e-004	0.0000	5.0000e-005	0.0000	6.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0511	0.0511	0.0000	0.0000	0.0511
Total	2.0000e-005	2.0000e-005	2.1000e-004	0.0000	5.0000e-005	0.0000	6.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0511	0.0511	0.0000	0.0000	0.0511

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0487					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.1000e-004	4.2100e-003	4.5800e-003	1.0000e-005		2.8000e-004	2.8000e-004		2.8000e-004	2.8000e-004	0.0000	0.6383	0.6383	5.0000e-005	0.0000	0.6396
Total	0.0494	4.2100e-003	4.5800e-003	1.0000e-005		2.8000e-004	2.8000e-004		2.8000e-004	2.8000e-004	0.0000	0.6383	0.6383	5.0000e-005	0.0000	0.6396

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3.6 Architectural Coating - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-005	2.0000e-005	2.1000e-004	0.0000	5.0000e-005	0.0000	6.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0511	0.0511	0.0000	0.0000	0.0511
Total	2.0000e-005	2.0000e-005	2.1000e-004	0.0000	5.0000e-005	0.0000	6.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0511	0.0511	0.0000	0.0000	0.0511

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0285	0.1309	0.3059	9.0000e-004	0.0671	9.4000e-004	0.0680	0.0180	8.8000e-004	0.0189	0.0000	82.6991	82.6991	5.0300e-003	0.0000	82.8249
Unmitigated	0.0285	0.1309	0.3059	9.0000e-004	0.0671	9.4000e-004	0.0680	0.0180	8.8000e-004	0.0189	0.0000	82.6991	82.6991	5.0300e-003	0.0000	82.8249

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Office Building	20.00	20.00	20.00	64,429	64,429
Home Improvement Superstore	82.03	82.03	82.03	112,281	112,281
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	0.00	0.00	0.00		
Total	102.03	102.03	102.03	176,710	176,710

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
Home Improvement Superstore	16.60	8.40	6.90	23.40	57.60	19.00	32	20	48
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No	16.60	8.40	6.90	59.00	0.00	41.00	92	5	3

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4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Office Building	0.547726	0.045437	0.201480	0.122768	0.016614	0.006090	0.019326	0.029174	0.002438	0.002359	0.005005	0.000677	0.000907
Home Improvement Superstore	0.547726	0.045437	0.201480	0.122768	0.016614	0.006090	0.019326	0.029174	0.002438	0.002359	0.005005	0.000677	0.000907
Other Non-Asphalt Surfaces	0.547726	0.045437	0.201480	0.122768	0.016614	0.006090	0.019326	0.029174	0.002438	0.002359	0.005005	0.000677	0.000907
Parking Lot	0.547726	0.045437	0.201480	0.122768	0.016614	0.006090	0.019326	0.029174	0.002438	0.002359	0.005005	0.000677	0.000907
Unrefrigerated Warehouse-No Rail	0.547726	0.045437	0.201480	0.122768	0.016614	0.006090	0.019326	0.029174	0.002438	0.002359	0.005005	0.000677	0.000907

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Install High Efficiency Lighting

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated							0.0000	0.0000		0.0000	0.0000	23.8191	23.8191	9.8000e-004	2.0000e-004	23.9043
Electricity Unmitigated							0.0000	0.0000		0.0000	0.0000	36.4319	36.4319	1.5000e-003	3.1000e-004	36.5623
NaturalGas Mitigated	1.5000e-004	1.4000e-003	1.1800e-003	1.0000e-005		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004	0.0000	1.5293	1.5293	3.0000e-005	3.0000e-005	1.5383
NaturalGas Unmitigated	1.7000e-004	1.5700e-003	1.3200e-003	1.0000e-005		1.2000e-004	1.2000e-004		1.2000e-004	1.2000e-004	0.0000	1.7119	1.7119	3.0000e-005	3.0000e-005	1.7221

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5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Office Building	20820	1.1000e-004	1.0200e-003	8.6000e-004	1.0000e-005		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005	0.0000	1.1110	1.1110	2.0000e-005	2.0000e-005	1.1176
Home Improvement Superstore	9049.52	5.0000e-005	4.4000e-004	3.7000e-004	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.4829	0.4829	1.0000e-005	1.0000e-005	0.4858
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	2209.8	1.0000e-005	1.1000e-004	9.0000e-005	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	0.1179	0.1179	0.0000	0.0000	0.1186
Total		1.7000e-004	1.5700e-003	1.3200e-003	1.0000e-005		1.2000e-004	1.2000e-004		1.2000e-004	1.2000e-004	0.0000	1.7119	1.7119	3.0000e-005	3.0000e-005	1.7221

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5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Office Building	18415.2	1.0000e-004	9.0000e-004	7.6000e-004	1.0000e-005		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	0.9827	0.9827	2.0000e-005	2.0000e-005	0.9885
Home Improvement Superstore	8288.04	4.0000e-005	4.1000e-004	3.4000e-004	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.4423	0.4423	1.0000e-005	1.0000e-005	0.4449
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	1953.77	1.0000e-005	1.0000e-004	8.0000e-005	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	0.1043	0.1043	0.0000	0.0000	0.1049
Total		1.5000e-004	1.4100e-003	1.1800e-003	1.0000e-005		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004	0.0000	1.5293	1.5293	3.0000e-005	3.0000e-005	1.5383

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5.3 Energy by Land Use - Electricity**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Office Building	25980	8.2778	3.4000e-004	7.0000e-005	8.3074
Home Improvement Superstore	74493	23.7351	9.8000e-004	2.0000e-004	23.8200
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	3963.4	1.2628	5.0000e-005	1.0000e-005	1.2673
Unrefrigerated Warehouse-No Rail	9906	3.1563	1.3000e-004	3.0000e-005	3.1676
Total		36.4319	1.5000e-003	3.1000e-004	36.5623

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5.3 Energy by Land Use - Electricity**Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Office Building	19598	6.2443	2.6000e-004	5.0000e-005	6.2667
Home Improvement Superstore	47657.9	15.1848	6.3000e-004	1.3000e-004	15.2391
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	1189.02	0.3789	2.0000e-005	0.0000	0.3802
Unrefrigerated Warehouse-No Rail	6311.9	2.0111	8.0000e-005	2.0000e-005	2.0183
Total		23.8191	9.9000e-004	2.0000e-004	23.9043

6.0 Area Detail**6.1 Mitigation Measures Area**

Use Low VOC Paint - Non-Residential Exterior

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0417	1.0000e-005	5.8000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1200e-003	1.1200e-003	0.0000	0.0000	1.2000e-003
Unmitigated	0.0423	1.0000e-005	5.8000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1200e-003	1.1200e-003	0.0000	0.0000	1.2000e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	4.8700e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0373					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.0000e-005	1.0000e-005	5.8000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1200e-003	1.1200e-003	0.0000	0.0000	1.2000e-003
Total	0.0423	1.0000e-005	5.8000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1200e-003	1.1200e-003	0.0000	0.0000	1.2000e-003

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6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	4.2900e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0373					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.0000e-005	1.0000e-005	5.8000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1200e-003	1.1200e-003	0.0000	0.0000	1.2000e-003
Total	0.0417	1.0000e-005	5.8000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1200e-003	1.1200e-003	0.0000	0.0000	1.2000e-003

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

Use Water Efficient Landscaping

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	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	4.9786	0.0244	6.1000e-004	5.7717
Unmitigated	7.6952	0.0444	1.1000e-003	9.1322

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Office Building	0.355467 / 0.217867	2.3588	0.0117	2.9000e-004	2.7379
Home Improvement Superstore	0.40888 / 0.250604	2.7132	0.0134	3.4000e-004	3.1493
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	0.587375 / 0	2.6232	0.0192	4.7000e-004	3.2451
Total		7.6952	0.0444	1.1000e-003	9.1322

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7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Office Building	0.195507 / 0.217867	1.6444	6.4400e-003	1.6000e-004	1.8541
Home Improvement Superstore	0.224884 / 0.250604	1.8915	7.4000e-003	1.9000e-004	2.1327
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	0.323056 / 0	1.4428	0.0106	2.6000e-004	1.7848
Total		4.9786	0.0244	6.1000e-004	5.7717

8.0 Waste Detail

8.1 Mitigation Measures Waste

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Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	13.2878	0.7853	0.0000	32.9199
Unmitigated	13.2878	0.7853	0.0000	32.9199

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Office Building	1.86	0.3776	0.0223	0.0000	0.9354
Home Improvement Superstore	61.21	12.4251	0.7343	0.0000	30.7826
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	2.39	0.4852	0.0287	0.0000	1.2019
Total		13.2878	0.7853	0.0000	32.9199

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8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Office Building	1.86	0.3776	0.0223	0.0000	0.9354
Home Improvement Superstore	61.21	12.4251	0.7343	0.0000	30.7826
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	2.39	0.4852	0.0287	0.0000	1.2019
Total		13.2878	0.7853	0.0000	32.9199

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Forklifts	0	8.00	260	89	0.20	CNG

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UnMitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Forklifts	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000							

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

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	Total CO2	CH4	N2O	CO2e
Category	MT			
Unmitigated	0.7080	0.0000	0.0000	0.7080

11.2 Net New Trees

Species Class

	Number of Trees	Total CO2	CH4	N2O	CO2e
		MT			
Miscellaneous	1	0.7080	0.0000	0.0000	0.7080
Total		0.7080	0.0000	0.0000	0.7080

13127 Garvey Avenue - Los Angeles-South Coast County, Winter

13127 Garvey Avenue
Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	2.00	1000sqft	0.05	2,000.00	0
Unrefrigerated Warehouse-No Rail	2.54	1000sqft	0.06	2,540.00	0
Other Non-Asphalt Surfaces	0.09	Acre	0.09	3,920.40	0
Parking Lot	35.00	Space	0.32	11,324.00	0
Home Improvement Superstore	5.52	1000sqft	0.13	5,518.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	33
Climate Zone	9			Operational Year	2020
Utility Company	Southern California Edison				
CO2 Intensity (lb/MW hr)	702.44	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

13127 Garvey Avenue - Los Angeles-South Coast County, Winter

Project Characteristics -

Land Use - Total lot acreage equals 0.65 acres

Construction Phase - Demolition involves removal of 2 trees on site. Grading will be minimal.

Trips and VMT - Updated BC worker trips

Demolition -

Grading - 0.5 acres of ground disturbance per day for four days.

Vehicle Trips - Total daily trips equals 102

Sequestration -

Construction Off-road Equipment Mitigation - Proposed project would include forklifts powered with natural gas

Area Mitigation - Compliance with SCAQMD Rule 1113

Energy Mitigation - Accounting for 2016 Title 24 Standards

Water Mitigation -

Operational Off-Road Equipment - Assumed 2 forklifts for moving materials around the site.

13127 Garvey Avenue - Los Angeles-South Coast County, Winter

Table Name	Column Name	Default Value	New Value
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	100	50
tblConstEquipMitigation	FuelType	Diesel	CNG
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstructionPhase	NumDays	100.00	175.00
tblConstructionPhase	NumDays	10.00	1.00
tblConstructionPhase	NumDays	2.00	4.00
tblGrading	AcresOfGrading	0.00	2.00
tblGrading	MaterialExported	0.00	32.00
tblLandUse	LandUseSquareFeet	14,000.00	11,324.00
tblLandUse	LandUseSquareFeet	5,520.00	5,518.00
tblOperationalOffRoadEquipment	OperFuelType	Diesel	CNG
tblSequestration	NumberOfNewTrees	0.00	1.00
tblTripsAndVMT	WorkerTripNumber	10.00	20.00
tblVehicleTrips	ST_TR	2.46	10.00
tblVehicleTrips	ST_TR	56.72	14.86
tblVehicleTrips	ST_TR	1.68	0.00
tblVehicleTrips	SU_TR	1.05	10.00
tblVehicleTrips	SU_TR	55.80	14.86
tblVehicleTrips	SU_TR	1.68	0.00
tblVehicleTrips	WD_TR	11.03	10.00
tblVehicleTrips	WD_TR	30.74	14.86
tblVehicleTrips	WD_TR	1.68	0.00

2.0 Emissions Summary

13127 Garvey Avenue - Los Angeles-South Coast County, Winter

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	1.0856	10.3656	8.5635	0.0163	1.3957	0.6103	1.9337	0.5008	0.5616	1.0142	0.0000	1,613.8100	1,613.8100	0.3723	0.0000	1,620.0539
2020	21.7581	18.3331	18.0587	0.0311	0.4727	1.0341	1.5068	0.1260	0.9638	1.0897	0.0000	2,970.5665	2,970.5665	0.7013	0.0000	2,988.0983
Maximum	21.7581	18.3331	18.0587	0.0311	1.3957	1.0341	1.9337	0.5008	0.9638	1.0897	0.0000	2,970.5665	2,970.5665	0.7013	0.0000	2,988.0983

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	1.0469	9.8860	20.1925	0.0163	0.6125	0.5426	1.1506	0.2134	0.5177	0.7268	0.0000	1,613.8100	1,613.8100	0.3943	0.0000	1,620.0539
2020	21.5728	17.8254	30.6222	0.0311	0.4727	0.9171	1.3898	0.1260	0.8584	0.9843	0.0000	3,038.5691	3,038.5691	0.7233	0.0000	3,056.6507
Maximum	21.5728	17.8254	30.6222	0.0311	0.6125	0.9171	1.3898	0.2134	0.8584	0.9843	0.0000	3,038.5691	3,038.5691	0.7233	0.0000	3,056.6507

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.98	3.44	-90.87	0.00	41.92	11.23	26.16	45.86	9.79	18.67	0.00	-1.48	-1.48	-4.10	0.00	-1.49

13127 Garvey Avenue - Los Angeles-South Coast County, Winter

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.2317	4.0000e-005	4.6400e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.8800e-003	9.8800e-003	3.0000e-005		0.0105
Energy	9.5000e-004	8.6200e-003	7.2400e-003	5.0000e-005		6.5000e-004	6.5000e-004		6.5000e-004	6.5000e-004		10.3398	10.3398	2.0000e-004	1.9000e-004	10.4013
Mobile	0.1615	0.7064	1.6707	4.8500e-003	0.3758	5.2200e-003	0.3810	0.1006	4.8900e-003	0.1055		493.0262	493.0262	0.0308		493.7953
Offroad	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.3941	0.7151	1.6826	4.9000e-003	0.3758	5.8900e-003	0.3817	0.1006	5.5600e-003	0.1061		503.3759	503.3759	0.0310	1.9000e-004	504.2071

13127 Garvey Avenue - Los Angeles-South Coast County, Winter

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.2285	4.0000e-005	4.6400e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.8800e-003	9.8800e-003	3.0000e-005		0.0105
Energy	8.5000e-004	7.7000e-003	6.4700e-003	5.0000e-005		5.8000e-004	5.8000e-004		5.8000e-004	5.8000e-004		9.2368	9.2368	1.8000e-004	1.7000e-004	9.2916
Mobile	0.1615	0.7064	1.6707	4.8500e-003	0.3758	5.2200e-003	0.3810	0.1006	4.8900e-003	0.1055		493.0262	493.0262	0.0308		493.7953
Offroad	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.3909	0.7142	1.6818	4.9000e-003	0.3758	5.8200e-003	0.3816	0.1006	5.4900e-003	0.1061		502.2728	502.2728	0.0310	1.7000e-004	503.0975

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.83	0.13	0.05	0.00	0.00	1.19	0.02	0.00	1.26	0.07	0.00	0.22	0.22	0.06	10.53	0.22

3.0 Construction Detail

Construction Phase

13127 Garvey Avenue - Los Angeles-South Coast County, Winter

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	12/2/2019	12/2/2019	5	1	
2	Grading	Grading	12/3/2019	12/6/2019	5	4	
3	Building Construction	Building Construction	12/9/2019	8/7/2020	5	175	
4	Paving	Paving	8/3/2020	8/7/2020	5	5	
5	Architectural Coating	Architectural Coating	8/3/2020	8/7/2020	5	5	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 2

Acres of Paving: 0.41

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 15,087; Non-Residential Outdoor: 5,029; Striped Parking Area: 915 (Architectural Coating – sqft)

OffRoad Equipment

13127 Garvey Avenue - Los Angeles-South Coast County, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	1.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Rubber Tired Dozers	1	1.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	4	10.00	0.00	4.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	20.00	4.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	2.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

13127 Garvey Avenue - Los Angeles-South Coast County, Winter

Use Alternative Fuel for Construction Equipment

Water Exposed Area

3.2 Demolition - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.8217	0.0000	0.8217	0.1244	0.0000	0.1244			0.0000			0.0000
Off-Road	0.9530	8.6039	7.6917	0.0120		0.5371	0.5371		0.5125	0.5125		1,159.6570	1,159.6570	0.2211		1,165.1847
Total	0.9530	8.6039	7.6917	0.0120	0.8217	0.5371	1.3588	0.1244	0.5125	0.6369		1,159.6570	1,159.6570	0.2211		1,165.1847

13127 Garvey Avenue - Los Angeles-South Coast County, Winter

3.2 Demolition - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0385	1.2415	0.2789	3.1400e-003	0.0699	4.5800e-003	0.0745	0.0192	4.3800e-003	0.0236		339.9399	339.9399	0.0247		340.5579
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0554	0.0407	0.4425	1.1500e-003	0.1118	9.6000e-004	0.1127	0.0296	8.9000e-004	0.0305		114.2131	114.2131	3.9300e-003		114.3113
Total	0.0939	1.2821	0.7213	4.2900e-003	0.1817	5.5400e-003	0.1873	0.0488	5.2700e-003	0.0541		454.1530	454.1530	0.0287		454.8693

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.3205	0.0000	0.3205	0.0485	0.0000	0.0485			0.0000			0.0000
Off-Road	0.9530	8.6039	7.6917	0.0120		0.5371	0.5371		0.5125	0.5125	0.0000	1,159.6570	1,159.6570	0.2211		1,165.1847
Total	0.9530	8.6039	7.6917	0.0120	0.3205	0.5371	0.8576	0.0485	0.5125	0.5610	0.0000	1,159.6570	1,159.6570	0.2211		1,165.1847

13127 Garvey Avenue - Los Angeles-South Coast County, Winter

3.2 Demolition - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0385	1.2415	0.2789	3.1400e-003	0.0699	4.5800e-003	0.0745	0.0192	4.3800e-003	0.0236		339.9399	339.9399	0.0247		340.5579
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0554	0.0407	0.4425	1.1500e-003	0.1118	9.6000e-004	0.1127	0.0296	8.9000e-004	0.0305		114.2131	114.2131	3.9300e-003		114.3113
Total	0.0939	1.2821	0.7213	4.2900e-003	0.1817	5.5400e-003	0.1873	0.0488	5.2700e-003	0.0541		454.1530	454.1530	0.0287		454.8693

3.3 Grading - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.2839	0.0000	1.2839	0.4712	0.0000	0.4712			0.0000			0.0000
Off-Road	0.9530	8.6039	7.6917	0.0120		0.5371	0.5371		0.5125	0.5125		1,159.6570	1,159.6570	0.2211		1,165.1847
Total	0.9530	8.6039	7.6917	0.0120	1.2839	0.5371	1.8210	0.4712	0.5125	0.9836		1,159.6570	1,159.6570	0.2211		1,165.1847

13127 Garvey Avenue - Los Angeles-South Coast County, Winter

3.3 Grading - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0554	0.0407	0.4425	1.1500e-003	0.1118	9.6000e-004	0.1127	0.0296	8.9000e-004	0.0305		114.2131	114.2131	3.9300e-003		114.3113
Total	0.0554	0.0407	0.4425	1.1500e-003	0.1118	9.6000e-004	0.1127	0.0296	8.9000e-004	0.0305		114.2131	114.2131	3.9300e-003		114.3113

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5007	0.0000	0.5007	0.1838	0.0000	0.1838			0.0000			0.0000
Off-Road	0.9530	8.6039	7.6917	0.0120		0.5371	0.5371		0.5125	0.5125	0.0000	1,159.6570	1,159.6570	0.2211		1,165.1847
Total	0.9530	8.6039	7.6917	0.0120	0.5007	0.5371	1.0378	0.1838	0.5125	0.6962	0.0000	1,159.6570	1,159.6570	0.2211		1,165.1847

13127 Garvey Avenue - Los Angeles-South Coast County, Winter

3.3 Grading - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0554	0.0407	0.4425	1.1500e-003	0.1118	9.6000e-004	0.1127	0.0296	8.9000e-004	0.0305		114.2131	114.2131	3.9300e-003		114.3113
Total	0.0554	0.0407	0.4425	1.1500e-003	0.1118	9.6000e-004	0.1127	0.0296	8.9000e-004	0.0305		114.2131	114.2131	3.9300e-003		114.3113

3.4 Building Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9576	9.8207	7.5432	0.0114		0.6054	0.6054		0.5569	0.5569		1,127.6696	1,127.6696	0.3568		1,136.5892
Total	0.9576	9.8207	7.5432	0.0114		0.6054	0.6054		0.5569	0.5569		1,127.6696	1,127.6696	0.3568		1,136.5892

13127 Garvey Avenue - Los Angeles-South Coast County, Winter

3.4 Building Construction - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0173	0.4635	0.1354	1.0200e-003	0.0256	3.0000e-003	0.0286	7.3700e-003	2.8700e-003	0.0102		108.5108	108.5108	7.6200e-003		108.7014
Worker	0.1108	0.0813	0.8850	2.2900e-003	0.2236	1.9300e-003	0.2255	0.0593	1.7800e-003	0.0611		228.4262	228.4262	7.8600e-003		228.6226
Total	0.1281	0.5449	1.0203	3.3100e-003	0.2492	4.9300e-003	0.2541	0.0667	4.6500e-003	0.0713		336.9370	336.9370	0.0155		337.3240

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7389	8.7274	19.1721	0.0114		0.4571	0.4571		0.4220	0.4220	0.0000	1,197.4021	1,197.4021	0.3789		1,206.8733
Total	0.7389	8.7274	19.1721	0.0114		0.4571	0.4571		0.4220	0.4220	0.0000	1,197.4021	1,197.4021	0.3789		1,206.8733

13127 Garvey Avenue - Los Angeles-South Coast County, Winter

3.4 Building Construction - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0173	0.4635	0.1354	1.0200e-003	0.0256	3.0000e-003	0.0286	7.3700e-003	2.8700e-003	0.0102		108.5108	108.5108	7.6200e-003		108.7014
Worker	0.1108	0.0813	0.8850	2.2900e-003	0.2236	1.9300e-003	0.2255	0.0593	1.7800e-003	0.0611		228.4262	228.4262	7.8600e-003		228.6226
Total	0.1281	0.5449	1.0203	3.3100e-003	0.2492	4.9300e-003	0.2541	0.0667	4.6500e-003	0.0713		336.9370	336.9370	0.0155		337.3240

3.4 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8617	8.8523	7.3875	0.0114		0.5224	0.5224		0.4806	0.4806		1,102.9781	1,102.9781	0.3567		1,111.8962
Total	0.8617	8.8523	7.3875	0.0114		0.5224	0.5224		0.4806	0.4806		1,102.9781	1,102.9781	0.3567		1,111.8962

13127 Garvey Avenue - Los Angeles-South Coast County, Winter

3.4 Building Construction - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0149	0.4254	0.1230	1.0100e-003	0.0256	2.0300e-003	0.0276	7.3700e-003	1.9500e-003	9.3200e-003		107.7796	107.7796	7.2100e-003		107.9598
Worker	0.1022	0.0725	0.8020	2.2200e-003	0.2236	1.8700e-003	0.2254	0.0593	1.7200e-003	0.0610		221.4841	221.4841	6.9800e-003		221.6586
Total	0.1171	0.4979	0.9250	3.2300e-003	0.2492	3.9000e-003	0.2531	0.0667	3.6700e-003	0.0703		329.2637	329.2637	0.0142		329.6184

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6764	8.3446	19.9511	0.0114		0.4054	0.4054		0.3752	0.3752	0.0000	1,170.9806	1,170.9806	0.3787		1,180.4486
Total	0.6764	8.3446	19.9511	0.0114		0.4054	0.4054		0.3752	0.3752	0.0000	1,170.9806	1,170.9806	0.3787		1,180.4486

13127 Garvey Avenue - Los Angeles-South Coast County, Winter

3.4 Building Construction - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0149	0.4254	0.1230	1.0100e-003	0.0256	2.0300e-003	0.0276	7.3700e-003	1.9500e-003	9.3200e-003		107.7796	107.7796	7.2100e-003		107.9598
Worker	0.1022	0.0725	0.8020	2.2200e-003	0.2236	1.8700e-003	0.2254	0.0593	1.7200e-003	0.0610		221.4841	221.4841	6.9800e-003		221.6586
Total	0.1171	0.4979	0.9250	3.2300e-003	0.2492	3.9000e-003	0.2531	0.0667	3.6700e-003	0.0703		329.2637	329.2637	0.0142		329.6184

3.5 Paving - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7716	7.2266	7.1128	0.0113		0.3950	0.3950		0.3669	0.3669		1,035.3926	1,035.3926	0.3016		1,042.9323
Paving	0.1677					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.9392	7.2266	7.1128	0.0113		0.3950	0.3950		0.3669	0.3669		1,035.3926	1,035.3926	0.3016		1,042.9323

13127 Garvey Avenue - Los Angeles-South Coast County, Winter

3.5 Paving - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0920	0.0652	0.7218	2.0000e-003	0.2012	1.6800e-003	0.2029	0.0534	1.5500e-003	0.0549		199.3357	199.3357	6.2800e-003		199.4927
Total	0.0920	0.0652	0.7218	2.0000e-003	0.2012	1.6800e-003	0.2029	0.0534	1.5500e-003	0.0549		199.3357	199.3357	6.2800e-003		199.4927

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7716	7.2266	7.1128	0.0113		0.3950	0.3950		0.3669	0.3669	0.0000	1,035.3926	1,035.3926	0.3016		1,042.9323
Paving	0.1677					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.9392	7.2266	7.1128	0.0113		0.3950	0.3950		0.3669	0.3669	0.0000	1,035.3926	1,035.3926	0.3016		1,042.9323

13127 Garvey Avenue - Los Angeles-South Coast County, Winter

3.5 Paving - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0920	0.0652	0.7218	2.0000e-003	0.2012	1.6800e-003	0.2029	0.0534	1.5500e-003	0.0549		199.3357	199.3357	6.2800e-003		199.4927
Total	0.0920	0.0652	0.7218	2.0000e-003	0.2012	1.6800e-003	0.2029	0.0534	1.5500e-003	0.0549		199.3357	199.3357	6.2800e-003		199.4927

3.6 Architectural Coating - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	19.4957					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109		281.4481	281.4481	0.0218		281.9928
Total	19.7379	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109		281.4481	281.4481	0.0218		281.9928

13127 Garvey Avenue - Los Angeles-South Coast County, Winter

3.6 Architectural Coating - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0102	7.2500e-003	0.0802	2.2000e-004	0.0224	1.9000e-004	0.0225	5.9300e-003	1.7000e-004	6.1000e-003		22.1484	22.1484	7.0000e-004		22.1659
Total	0.0102	7.2500e-003	0.0802	2.2000e-004	0.0224	1.9000e-004	0.0225	5.9300e-003	1.7000e-004	6.1000e-003		22.1484	22.1484	7.0000e-004		22.1659

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	19.4957					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109	0.0000	281.4481	281.4481	0.0218		281.9928
Total	19.7379	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109	0.0000	281.4481	281.4481	0.0218		281.9928

13127 Garvey Avenue - Los Angeles-South Coast County, Winter

3.6 Architectural Coating - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0102	7.2500e-003	0.0802	2.2000e-004	0.0224	1.9000e-004	0.0225	5.9300e-003	1.7000e-004	6.1000e-003		22.1484	22.1484	7.0000e-004		22.1659
Total	0.0102	7.2500e-003	0.0802	2.2000e-004	0.0224	1.9000e-004	0.0225	5.9300e-003	1.7000e-004	6.1000e-003		22.1484	22.1484	7.0000e-004		22.1659

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

13127 Garvey Avenue - Los Angeles-South Coast County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.1615	0.7064	1.6707	4.8500e-003	0.3758	5.2200e-003	0.3810	0.1006	4.8900e-003	0.1055		493.0262	493.0262	0.0308		493.7953
Unmitigated	0.1615	0.7064	1.6707	4.8500e-003	0.3758	5.2200e-003	0.3810	0.1006	4.8900e-003	0.1055		493.0262	493.0262	0.0308		493.7953

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Office Building	20.00	20.00	20.00	64,429	64,429
Home Improvement Superstore	82.03	82.03	82.03	112,281	112,281
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	0.00	0.00	0.00		
Total	102.03	102.03	102.03	176,710	176,710

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
Home Improvement Superstore	16.60	8.40	6.90	23.40	57.60	19.00	32	20	48
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No	16.60	8.40	6.90	59.00	0.00	41.00	92	5	3

13127 Garvey Avenue - Los Angeles-South Coast County, Winter

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Office Building	0.547726	0.045437	0.201480	0.122768	0.016614	0.006090	0.019326	0.029174	0.002438	0.002359	0.005005	0.000677	0.000907
Home Improvement Superstore	0.547726	0.045437	0.201480	0.122768	0.016614	0.006090	0.019326	0.029174	0.002438	0.002359	0.005005	0.000677	0.000907
Other Non-Asphalt Surfaces	0.547726	0.045437	0.201480	0.122768	0.016614	0.006090	0.019326	0.029174	0.002438	0.002359	0.005005	0.000677	0.000907
Parking Lot	0.547726	0.045437	0.201480	0.122768	0.016614	0.006090	0.019326	0.029174	0.002438	0.002359	0.005005	0.000677	0.000907
Unrefrigerated Warehouse-No Rail	0.547726	0.045437	0.201480	0.122768	0.016614	0.006090	0.019326	0.029174	0.002438	0.002359	0.005005	0.000677	0.000907

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Install High Efficiency Lighting

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	8.5000e-004	7.7000e-003	6.4700e-003	5.0000e-005		5.8000e-004	5.8000e-004		5.8000e-004	5.8000e-004		9.2368	9.2368	1.8000e-004	1.7000e-004	9.2916
NaturalGas Unmitigated	9.5000e-004	8.6200e-003	7.2400e-003	5.0000e-005		6.5000e-004	6.5000e-004		6.5000e-004	6.5000e-004		10.3398	10.3398	2.0000e-004	1.9000e-004	10.4013

13127 Garvey Avenue - Los Angeles-South Coast County, Winter

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Office Building	57.0411	6.2000e-004	5.5900e-003	4.7000e-003	3.0000e-005		4.3000e-004	4.3000e-004		4.3000e-004	4.3000e-004		6.7107	6.7107	1.3000e-004	1.2000e-004	6.7506
Home Improvement Superstore	24.7932	2.7000e-004	2.4300e-003	2.0400e-003	1.0000e-005		1.8000e-004	1.8000e-004		1.8000e-004	1.8000e-004		2.9169	2.9169	6.0000e-005	5.0000e-005	2.9342
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	6.05425	7.0000e-005	5.9000e-004	5.0000e-004	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.7123	0.7123	1.0000e-005	1.0000e-005	0.7165
Total		9.6000e-004	8.6100e-003	7.2400e-003	4.0000e-005		6.6000e-004	6.6000e-004		6.6000e-004	6.6000e-004		10.3398	10.3398	2.0000e-004	1.8000e-004	10.4013

13127 Garvey Avenue - Los Angeles-South Coast County, Winter

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Office Building	0.0504526	5.4000e-004	4.9500e-003	4.1500e-003	3.0000e-005		3.8000e-004	3.8000e-004		3.8000e-004	3.8000e-004		5.9356	5.9356	1.1000e-004	1.1000e-004	5.9709
Home Improvement Superstore	0.0227069	2.4000e-004	2.2300e-003	1.8700e-003	1.0000e-005		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004		2.6714	2.6714	5.0000e-005	5.0000e-005	2.6873
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	0.00535279	6.0000e-005	5.2000e-004	4.4000e-004	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005		0.6297	0.6297	1.0000e-005	1.0000e-005	0.6335
Total		8.4000e-004	7.7000e-003	6.4600e-003	4.0000e-005		5.9000e-004	5.9000e-004		5.9000e-004	5.9000e-004		9.2368	9.2368	1.7000e-004	1.7000e-004	9.2916

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Non-Residential Exterior

13127 Garvey Avenue - Los Angeles-South Coast County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.2285	4.0000e-005	4.6400e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.8800e-003	9.8800e-003	3.0000e-005		0.0105
Unmitigated	0.2317	4.0000e-005	4.6400e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.8800e-003	9.8800e-003	3.0000e-005		0.0105

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0267					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.2046					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.4000e-004	4.0000e-005	4.6400e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.8800e-003	9.8800e-003	3.0000e-005		0.0105
Total	0.2317	4.0000e-005	4.6400e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.8800e-003	9.8800e-003	3.0000e-005		0.0105

13127 Garvey Avenue - Los Angeles-South Coast County, Winter

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0235					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.2046					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.4000e-004	4.0000e-005	4.6400e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.8800e-003	9.8800e-003	3.0000e-005		0.0105
Total	0.2285	4.0000e-005	4.6400e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.8800e-003	9.8800e-003	3.0000e-005		0.0105

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

Use Water Efficient Landscaping

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Forklifts	0	8.00	260	89	0.20	CNG

13127 Garvey Avenue - Los Angeles-South Coast County, Winter

UnMitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Equipment Type	lb/day										lb/day						
Forklifts	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Total	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000			0.0000

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
----------------	--------	-----------	------------	-------------	-------------	-----------

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
----------------	--------	----------------	-----------------	---------------	-----------

User Defined Equipment

Equipment Type	Number
----------------	--------

11.0 Vegetation

Appendix B

Noise Calculations

Noise Formulas

Noise Distance Attenuation

Hard Site

Equation: $N_i = N_o - 20 X (\log D_i/D_o)$ D_i = distance to receptor ($D_i > D_o$)

N_i = attenuated noise level of interest D_o = reference distance
 N_o = reference noise level

Source: (Bolt, Beranek, and Newman, 1971)

Summation of Noise Levels

Equation: $N_s = 10 \times \text{LOG}_{10}((10^{(N_1/10)}) + (10^{(N_2/10)}) + (10^{(N_3/10)}) + (10^{(N_4/10)}))$

N_s = Noise Level Sum
 N_1 = Noise Level 1
 N_2 = Noise Level 2
 N_3 = Noise Level 3
 N_4 = Noise Level 4

Source: California Department of Transportation, *Technical Noise Supplement*, 2013

Construction Noise Analysis

Phased Construction Noise Levels	
Construction Equipment	feet (dBA)
Demolition	
Chain Saw	76.7
Dozer	77.7
Backhoe	73.6
Demolition Combined	81.1
Grading/Site Preparation	
Concrete Saw	82.6
Dozer	77.7
Backhoe	73.6
Grading/Site Preparation Combined	84.2
Building Construction	
Crane	72.6
Forklift	79.4
Backhoe	73.6
Building Construction Combined	81.1
Paving	
Concrete Mixer Truck	74.8
Pavers	74.2
Backhoe	73.6
Rollers	73.0
Paving Combined	80.0
Architectural Coating	
Compressor	73.7

On-Site Construction Noise: Resulting Noise Level Increases - Unmitigated

Sensitive Receptor	Distance (feet) /a/	Reference Noise Level (dBA)	Intervening Building Row	Max Construction Noise (dBA, Leq)	Existing Noise Level	New Ambient Noise Level (dBA, Leq)
Aristocrat Motel adjacent to the west	15	84.2	0.0	94.7	68.9	94.7
Residences to the north across the Alley	40	84.2	0.0	86.1	59.5	86.1
Residences to the north along Frazier St.	170	84.2	0.0	73.6	63.8	74.0
Residences to the north along Frazier St.	280	84.2	4.5	64.7	63.8	67.3
Residences to the northeast along Parkwood Pl.	250	84.2	4.5	65.7	52.8	65.9
Residences to the east along Fairgrove Ave.	320	84.2	4.5	63.6	63.8	66.7
Residences to the west along Frazier St.	450	84.2	4.5	60.6	63.8	65.5
Residences to the northeast along Fairgrove Ave.	500	84.2	4.5	59.7	63.8	65.2

/a/ Includes a 4.5 dB reduction for intervening row of buildings

On-Site Construction Noise: Resulting Noise Level Increases - Mitigated

Sensitive Receptor	Distance (feet) /a/	Reference Noise Level (dBA)	Intervening Building Row	Mitigation	Max Construction Noise (dBA, Leq)	Existing Noise Level	New Ambient Noise Level (dBA, Leq)
Aristocrat Motel adjacent to the west	15	84.2	0.0	13.0	81.7	68.9	81.9
Residences to the north across the Alley	40	84.2	0.0	13.0	73.1	59.5	73.3
Residences to the north along Frazier St.	170	84.2	0.0	13.0	60.6	63.8	65.5
Residences to the north along Frazier St.	280	84.2	4.5	13.0	51.7	63.8	64.1
Residences to the northeast along Parkwood Pl.	250	84.2	4.5	13.0	52.7	52.8	55.8
Residences to the east along Fairgrove Ave.	320	84.2	4.5	13.0	50.6	63.8	64.0
Residences to the west along Frazier St.	450	84.2	4.5	13.0	47.6	63.8	63.9
Residences to the northeast along Fairgrove Ave.	500	84.2	4.5	13.0	46.7	63.8	63.9

/a/ Includes a 4.5 dB reduction for intervening row of buildings

Vibration Formulas

Vibration PPV Attenuation

Equation: $PPV_{equip} = PPV_{ref} \times (25/D)^{1.5}$

PPV (equip) is the peak particle velocity in in/sec of the equipment adjusted for distance

PPV (ref) is the reference vibration level in in/sec at 25 feet from Table 12-2

D is the distance from the equipment to the receiver.

Source: Federal Transit Administration, Transit Noise and Vibration Impact Assessment, September 2018.

RESULTS: SOUND LEVELS

<Project Name?>

<Organization?>		6 November 2019										
<Analysis By?>		TNM 2.5										
		Calculated with TNM 2.5										
RESULTS: SOUND LEVELS												
PROJECT/CONTRACT:		<Project Name?>										
RUN:		<Run Title?>										
BARRIER DESIGN:		INPUT HEIGHTS										
		Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.										
ATMOSPHERICS:		68 deg F, 50% RH										
Receiver												
Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h	Increase over existing		Type	With Barrier		Noise Reduction		
				Calculated	Crit'n	Calculated	Crit'n	Impact	Calculated LAeq1h	Calculated	Goal	Calculated minus Goal
			dB	dB	dB	dB	dB		dB	dB	dB	dB
Receiver1	1	1	0.0	50.9	66	50.9	10	----	50.9	0.0	8	-8.0
Dwelling Units		# DUs	Noise Reduction									
			Min	Avg	Max							
			dB	dB	dB							
All Selected		1	0.0	0.0	0.0							
All Impacted		0	0.0	0.0	0.0							
All that meet NR Goal		0	0.0	0.0	0.0							

RESULTS: SOUND LEVELS

<Project Name?>

<Organization?>		6 November 2019										
<Analysis By?>		TNM 2.5										
		Calculated with TNM 2.5										
RESULTS: SOUND LEVELS												
PROJECT/CONTRACT:		<Project Name?>										
RUN:		<Run Title?>										
BARRIER DESIGN:		INPUT HEIGHTS										
		Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.										
ATMOSPHERICS:		68 deg F, 50% RH										
Receiver												
Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h	Increase over existing		Type	With Barrier		Noise Reduction		
				Calculated	Crit'n	Calculated	Crit'n	Impact	Calculated LAeq1h	Calculated	Goal	Calculated minus Goal
			dB	dB	dB	dB	dB		dB	dB	dB	dB
Receiver1	1	1	0.0	51.0	66	51.0	10	----	51.0	0.0	8	-8.0
Dwelling Units		# DUs	Noise Reduction									
			Min	Avg	Max							
			dB	dB	dB							
All Selected		1	0.0	0.0	0.0							
All Impacted		0	0.0	0.0	0.0							
All that meet NR Goal		0	0.0	0.0	0.0							

RESULTS: SOUND LEVELS

<Project Name?>

<Organization?>		6 November 2019										
<Analysis By?>		TNM 2.5										
		Calculated with TNM 2.5										
RESULTS: SOUND LEVELS												
PROJECT/CONTRACT:		<Project Name?>										
RUN:		<Run Title?>										
BARRIER DESIGN:		INPUT HEIGHTS					Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.					
ATMOSPHERICS:		68 deg F, 50% RH										
Receiver												
Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h	Increase over existing		Type	With Barrier		Noise Reduction		
				Calculated	Crit'n	Calculated	Crit'n	Impact	Calculated LAeq1h	Calculated	Goal	Calculated minus Goal
			dB	dB	dB	dB	dB		dB	dB	dB	dB
Receiver1	1	1	0.0	51.0	66	51.0	10	----	51.0	0.0	8	-8.0
Dwelling Units		# DUs	Noise Reduction									
			Min	Avg	Max							
			dB	dB	dB							
All Selected		1	0.0	0.0	0.0							
All Impacted		0	0.0	0.0	0.0							
All that meet NR Goal		0	0.0	0.0	0.0							

RESULTS: SOUND LEVELS

<Project Name?>

<Organization?>		6 November 2019										
<Analysis By?>		TNM 2.5										
		Calculated with TNM 2.5										
RESULTS: SOUND LEVELS												
PROJECT/CONTRACT:		<Project Name?>										
RUN:		<Run Title?>										
BARRIER DESIGN:		INPUT HEIGHTS										
		Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.										
ATMOSPHERICS:		68 deg F, 50% RH										
Receiver												
Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h	Increase over existing		Type	With Barrier		Noise Reduction		
				Calculated	Crit'n	Calculated	Crit'n	Impact	Calculated LAeq1h	Calculated	Goal	Calculated minus Goal
							Sub'l Inc					
			dB	dB	dB	dB	dB		dB	dB	dB	dB
Receiver1	1	1	0.0	51.0	66	51.0	10	----	51.0	0.0	8	-8.0
Dwelling Units		# DUs	Noise Reduction									
			Min	Avg	Max							
			dB	dB	dB							
All Selected		1	0.0	0.0	0.0							
All Impacted		0	0.0	0.0	0.0							
All that meet NR Goal		0	0.0	0.0	0.0							

RESULTS: SOUND LEVELS

<Project Name?>

<Organization?>		6 November 2019										
<Analysis By?>		TNM 2.5										
		Calculated with TNM 2.5										
RESULTS: SOUND LEVELS												
PROJECT/CONTRACT:		<Project Name?>										
RUN:		<Run Title?>										
BARRIER DESIGN:		INPUT HEIGHTS										
		Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.										
ATMOSPHERICS:		68 deg F, 50% RH										
Receiver												
Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h	Increase over existing		Type	With Barrier		Noise Reduction		
				Calculated	Crit'n	Calculated	Crit'n	Impact	Calculated LAeq1h	Calculated	Goal	Calculated minus Goal
			dB	dB	dB	dB	dB		dB	dB	dB	dB
Receiver1	1	1	0.0	60.6	66	60.6	10	----	60.6	0.0	8	-8.0
Dwelling Units		# DUs	Noise Reduction									
			Min	Avg	Max							
			dB	dB	dB							
All Selected		1	0.0	0.0	0.0							
All Impacted		0	0.0	0.0	0.0							
All that meet NR Goal		0	0.0	0.0	0.0							

RESULTS: SOUND LEVELS

<Project Name?>

<Organization?>		6 November 2019											
<Analysis By?>		TNM 2.5											
		Calculated with TNM 2.5											
RESULTS: SOUND LEVELS													
PROJECT/CONTRACT:		<Project Name?>											
RUN:		<Run Title?>											
BARRIER DESIGN:		INPUT HEIGHTS											
ATMOSPHERICS:		68 deg F, 50% RH											
Receiver													
Name	No.	#DUs	Existing	No Barrier	Increase over existing			Type	With Barrier				
			LAeq1h	LAeq1h				Calculated	Noise Reduction				
				Calculated	Crit'n	Calculated	Crit'n	Impact	LAeq1h	Calculated	Goal	Calculated	
							Sub'l Inc					minus	
			dB	dB	dB	dB	dB		dB	dB	dB	dB	
Receiver1	1	1	0.0	60.6	66	60.6	10	----	60.6	0.0	8	-8.0	
Dwelling Units		# DUs	Noise Reduction										
			Min	Avg	Max								
			dB	dB	dB								
All Selected		1	0.0	0.0	0.0								
All Impacted		0	0.0	0.0	0.0								
All that meet NR Goal		0	0.0	0.0	0.0								

RESULTS: SOUND LEVELS

<Project Name?>

<Organization?>		6 November 2019										
<Analysis By?>		TNM 2.5										
		Calculated with TNM 2.5										
RESULTS: SOUND LEVELS												
PROJECT/CONTRACT:		<Project Name?>										
RUN:		<Run Title?>										
BARRIER DESIGN:		INPUT HEIGHTS										
		Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.										
ATMOSPHERICS:		68 deg F, 50% RH										
Receiver												
Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h	Increase over existing		Type	With Barrier		Noise Reduction		
				Calculated	Crit'n	Calculated	Crit'n	Impact	Calculated LAeq1h	Calculated	Goal	Calculated minus Goal
			dB	dB	dB	dB	dB		dB	dB	dB	dB
Receiver1	1	1	0.0	60.9	66	60.9	10	----	60.9	0.0	8	-8.0
Dwelling Units		# DUs	Noise Reduction									
			Min	Avg	Max							
			dB	dB	dB							
All Selected		1	0.0	0.0	0.0							
All Impacted		0	0.0	0.0	0.0							
All that meet NR Goal		0	0.0	0.0	0.0							

RESULTS: SOUND LEVELS

<Project Name?>

<Organization?>		6 November 2019										
<Analysis By?>		TNM 2.5										
		Calculated with TNM 2.5										
RESULTS: SOUND LEVELS												
PROJECT/CONTRACT:		<Project Name?>										
RUN:		<Run Title?>										
BARRIER DESIGN:		INPUT HEIGHTS										
		Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.										
ATMOSPHERICS:		68 deg F, 50% RH										
Receiver												
Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h	Increase over existing		Type	With Barrier		Noise Reduction		
				Calculated	Crit'n	Calculated	Crit'n	Impact	Calculated LAeq1h	Calculated	Goal	Calculated minus Goal
			dB	dB	dB	dB	dB		dB	dB	dB	dB
Receiver1	1	1	0.0	60.9	66	60.9	10	----	60.9	0.0	8	-8.0
Dwelling Units		# DUs	Noise Reduction									
			Min	Avg	Max							
			dB	dB	dB							
All Selected		1	0.0	0.0	0.0							
All Impacted		0	0.0	0.0	0.0							
All that meet NR Goal		0	0.0	0.0	0.0							

RESULTS: SOUND LEVELS

<Project Name?>

<Organization?>		6 November 2019										
<Analysis By?>		TNM 2.5										
		Calculated with TNM 2.5										
RESULTS: SOUND LEVELS												
PROJECT/CONTRACT:		<Project Name?>										
RUN:		<Run Title?>										
BARRIER DESIGN:		INPUT HEIGHTS										
		Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.										
ATMOSPHERICS:		68 deg F, 50% RH										
Receiver												
Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h	Increase over existing		Type	With Barrier		Noise Reduction		
				Calculated	Crit'n	Calculated	Crit'n	Impact	Calculated LAeq1h	Calculated	Goal	Calculated minus Goal
							Sub'l Inc					
			dB	dB	dB	dB	dB		dB	dB	dB	dB
Receiver1	1	1	0.0	57.1	66	57.1	10	----	57.1	0.0	8	-8.0
Dwelling Units		# DUs	Noise Reduction									
			Min	Avg	Max							
			dB	dB	dB							
All Selected		1	0.0	0.0	0.0							
All Impacted		0	0.0	0.0	0.0							
All that meet NR Goal		0	0.0	0.0	0.0							

RESULTS: SOUND LEVELS

<Project Name?>

<Organization?>		6 November 2019										
<Analysis By?>		TNM 2.5										
		Calculated with TNM 2.5										
RESULTS: SOUND LEVELS												
PROJECT/CONTRACT:		<Project Name?>										
RUN:		<Run Title?>										
BARRIER DESIGN:		INPUT HEIGHTS										
		Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.										
ATMOSPHERICS:		68 deg F, 50% RH										
Receiver												
Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h	Increase over existing		Type	With Barrier		Noise Reduction		
				Calculated	Crit'n	Calculated	Crit'n	Impact	Calculated LAeq1h	Calculated	Goal	Calculated minus Goal
							Sub'l Inc					
			dB	dB	dB	dB	dB		dB	dB	dB	dB
Receiver1	1	1	0.0	57.3	66	57.3	10	----	57.3	0.0	8	-8.0
Dwelling Units		# DUs	Noise Reduction									
			Min	Avg	Max							
			dB	dB	dB							
All Selected		1	0.0	0.0	0.0							
All Impacted		0	0.0	0.0	0.0							
All that meet NR Goal		0	0.0	0.0	0.0							

RESULTS: SOUND LEVELS

<Project Name?>

<Organization?>		6 November 2019											
<Analysis By?>		TNM 2.5											
		Calculated with TNM 2.5											
RESULTS: SOUND LEVELS													
PROJECT/CONTRACT:		<Project Name?>											
RUN:		<Run Title?>											
BARRIER DESIGN:		INPUT HEIGHTS											
ATMOSPHERICS:		68 deg F, 50% RH											
Receiver													
Name	No.	#DUs	Existing	No Barrier				With Barrier					
			LAeq1h	LAeq1h	Increase over existing		Type	Calculated	Noise Reduction				
				Calculated	Crit'n	Calculated	Crit'n	Impact	LAeq1h	Calculated	Goal	Calculated	minus
							Sub'l Inc					Goal	Calculated
			dB	dB	dB	dB	dB		dB	dB	dB	dB	dB
Receiver1	1	1	0.0	57.4	66	57.4	10	----	57.4	0.0	8	-8.0	
Dwelling Units		# DUs	Noise Reduction										
			Min	Avg	Max								
			dB	dB	dB								
All Selected		1	0.0	0.0	0.0								
All Impacted		0	0.0	0.0	0.0								
All that meet NR Goal		0	0.0	0.0	0.0								

RESULTS: SOUND LEVELS

<Project Name?>

<Organization?>		6 November 2019										
<Analysis By?>		TNM 2.5										
		Calculated with TNM 2.5										
RESULTS: SOUND LEVELS												
PROJECT/CONTRACT:		<Project Name?>										
RUN:		<Run Title?>										
BARRIER DESIGN:		INPUT HEIGHTS										
ATMOSPHERICS:		68 deg F, 50% RH										
Receiver												
Name	No.	#DUs	Existing	No Barrier				With Barrier				
			LAeq1h	LAeq1h	Increase over existing		Type	Calculated	Noise Reduction			
				Calculated	Crit'n	Calculated	Crit'n	Impact	LAeq1h	Calculated	Goal	Calculated
							Sub'l Inc					minus
												Goal
			dB	dB	dB	dB	dB		dB	dB	dB	dB
Receiver1	1	1	0.0	57.2	66	57.2	10	----	57.2	0.0	8	-8.0
Dwelling Units		# DUs	Noise Reduction									
			Min	Avg	Max							
			dB	dB	dB							
All Selected		1	0.0	0.0	0.0							
All Impacted		0	0.0	0.0	0.0							
All that meet NR Goal		0	0.0	0.0	0.0							

13127 Garvey Ave_Site 1

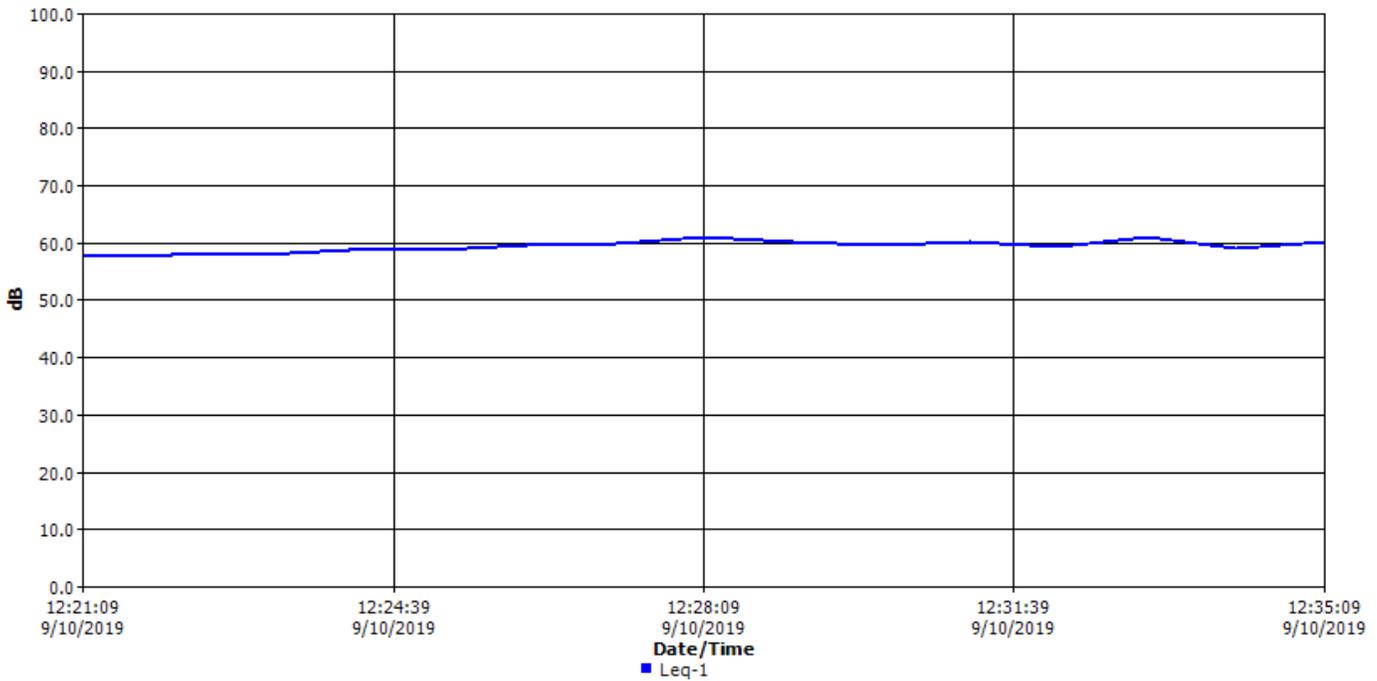
Information Panel

Name S038_BGS100001_06112019_093758
 Start Time Tuesday, September 10, 2019 12:20:09
 Stop Time Tuesday, September 10, 2019 12:35:09
 Device Model Type SoundPro DL
 Comments

General Data Panel

Description	Meter	Value	Description	Meter	Value
Leq	1	59.4 dB	Exchange Rate	1	3 dB
Weighting	1	A	Response	1	SLOW
Bandwidth	1	OFF	Exchange Rate	2	3 dB
Weighting	2	A	Response	2	SLOW

Logged Data Chart



Logged Data Table

Timestamp	Leq-1
9/10/2019 12:21:09 PM	57.6
9/10/2019 12:22:09 PM	57.8
9/10/2019 12:23:09 PM	57.9
9/10/2019 12:24:09 PM	58.7
9/10/2019 12:25:09 PM	58.6
9/10/2019 12:26:09 PM	59.5
9/10/2019 12:27:09 PM	59.8
9/10/2019 12:28:09 PM	61.0
9/10/2019 12:29:09 PM	60.0
9/10/2019 12:30:09 PM	59.5
9/10/2019 12:31:09 PM	60.2
9/10/2019 12:32:09 PM	59.2
9/10/2019 12:33:09 PM	60.9
9/10/2019 12:34:09 PM	59.1
9/10/2019 12:35:09 PM	60.1

Noise Measurement Report Form

Project: 13127 Garvey Ave Contract No (s): N/A
 Date: 9/10/19U Day of Week: Tue Time: 12:18
 Monitoring Site Number: 1 Monitoring Site Address: 34° 4' 3.17" N; 117° 59' 19.10" W
 Measurement Taken By: Blaire Frei
 Approximate Wind Speed: 2-3 mph [km/hr] Approximate Wind Direction: From the east
 Approximate distance of Sound Level Meter from Receptor Location: 25 ft
 Approximate distance of Sound Level Meter from Project Site: 10 ft

Receptor Land Use (Check One) Residential / Institutional Commercial / Recreational
 Sound Level Meter: Make and Model: _____ Serial Number: _____
 Meter Setting A-Weighted Sound Level (SLOW) C-Weighted Sound Level (FAST) for Impacts
 Duration of Measurement: 15 min
 Check the measurement purpose:
 Baseline condition Ongoing construction Major change Complaint response

Measurement Results:

Measurement Type	Measured Level	Noise Criteria Threshold	Exceedance
Calibration	<u>114</u>	n/a	n/a
Leq	<u>59.5</u>		
Lmax			
Ldn			
CNEL			

Field Notes:

1. Moved meter slightly further from receptor to stand at least 10 ft away
2. Lots of ambient noise from freeway → primary source
3. Small bi-plane overhead @ 12:29
4. _____

Site 1 (3108 Frazier Street)



13127 Garvey Ave_Site 2

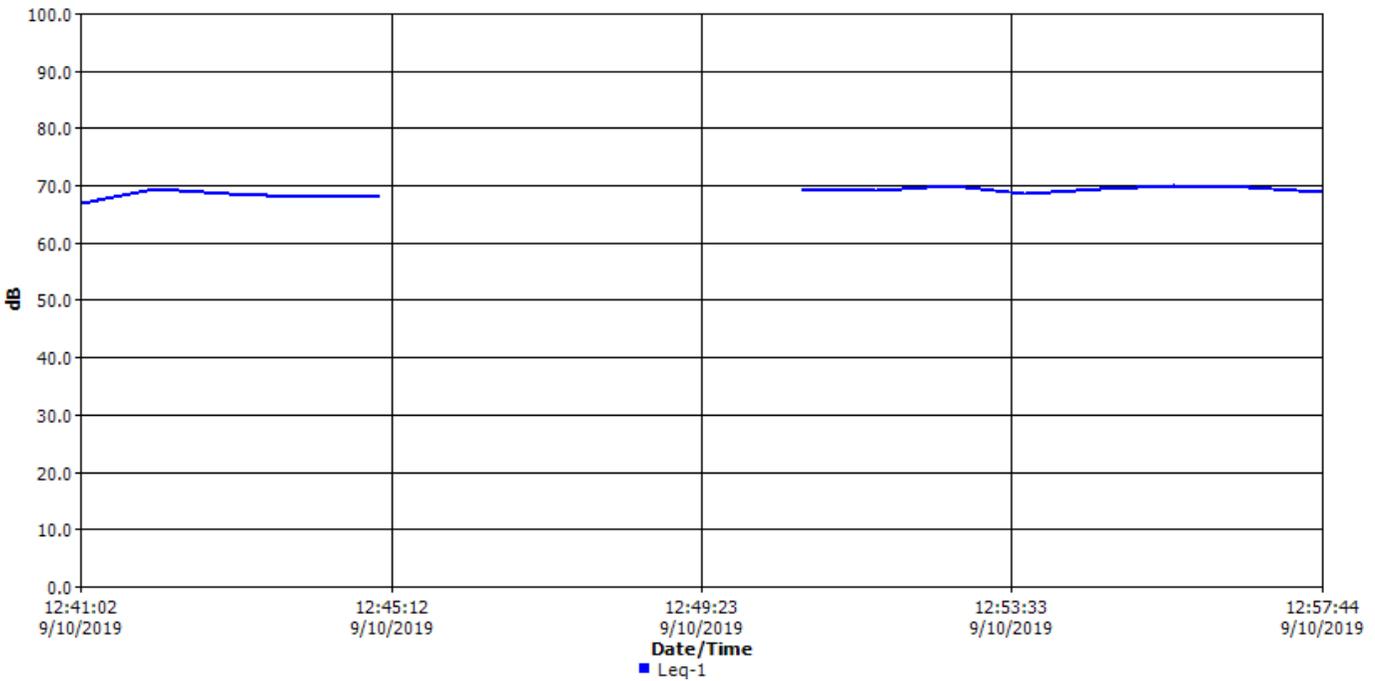
Information Panel

Name S039_BGS100001_06112019_093758
 Start Time Tuesday, September 10, 2019 12:40:02
 Stop Time Tuesday, September 10, 2019 13:00:38
 Device Model Type SoundPro DL
 Comments

General Data Panel

Description	Meter	Value	Description	Meter	Value
Leq	1	68.9 dB	Exchange Rate	1	3 dB
Weighting	1	A	Response	1	SLOW
Bandwidth	1	OFF	Exchange Rate	2	3 dB
Weighting	2	A	Response	2	SLOW

Logged Data Chart



Logged Data Table

Timestamp	Leq-1
9/10/2019 12:41:02 PM	66.8
9/10/2019 12:42:02 PM	69.4
9/10/2019 12:43:02 PM	68.4
9/10/2019 12:44:02 PM	68.0
9/10/2019 12:45:02 PM	68.3
9/10/2019 12:50:44 PM	69.1
9/10/2019 12:51:44 PM	69.0
9/10/2019 12:52:44 PM	69.9
9/10/2019 12:53:44 PM	68.6
9/10/2019 12:54:44 PM	69.2
9/10/2019 12:55:44 PM	69.8
9/10/2019 12:56:44 PM	69.6
9/10/2019 12:57:44 PM	68.9

Noise Measurement Report Form

Project: 13127 Garvey Ave Contract No (s): N/A
 Date: 9/10/19 Day of Week: Tue Time: 12:38
 Monitoring Site Number: 2 Monitoring Site Address: ~~1229~~ 13109 Garvey Ave.
 Measurement Taken By: Blaire Freil
 Approximate Wind Speed: 2 mph [km/hr] Approximate Wind Direction: From the east
 Approximate distance of Sound Level Meter from Receptor Location: 15 ft
 Approximate distance of Sound Level Meter from Project Site: 50 ft

Receptor Land Use (Check One) Residential / Institutional Commercial / Recreational
 Sound Level Meter: Make and Model: _____ Serial Number: _____
 Meter Setting A-Weighted Sound Level (SLOW) C-Weighted Sound Level (FAST) for Impacts
 Duration of Measurement: 15 min
 Check the measurement purpose:
 Baseline condition Ongoing construction Major change Complaint response

Measurement Results:

Measurement Type	Measured Level	Noise Criteria Threshold	Exceedance
Calibration	<u>114</u>	n/a	n/a
L _{eq}	<u>68.9</u>		
L _{max}			
L _{dn}			
CNEL			

Field Notes:

1. front of Aristocrat Motel; just west of entrance wall
2. Some light, intermittent car traffic; most ambient noise from freeway
3. approx 10 ft from wall of adjacent building.
4. Truck drove past at 12:43 pm for drop off/loading in front of meter. Paused. Resumed recording at ~~12:43~~ 12:48. Truck idled approx 20 ft from monitor between 12:43 - 12:51, then backed into property. Briefly paused while he backed into the property.
5. Cherry picker operating approx 50 ft west of monitor.

Site 2 (13109 Garvey Avenue)



13127 Garvey Ave_Site 3

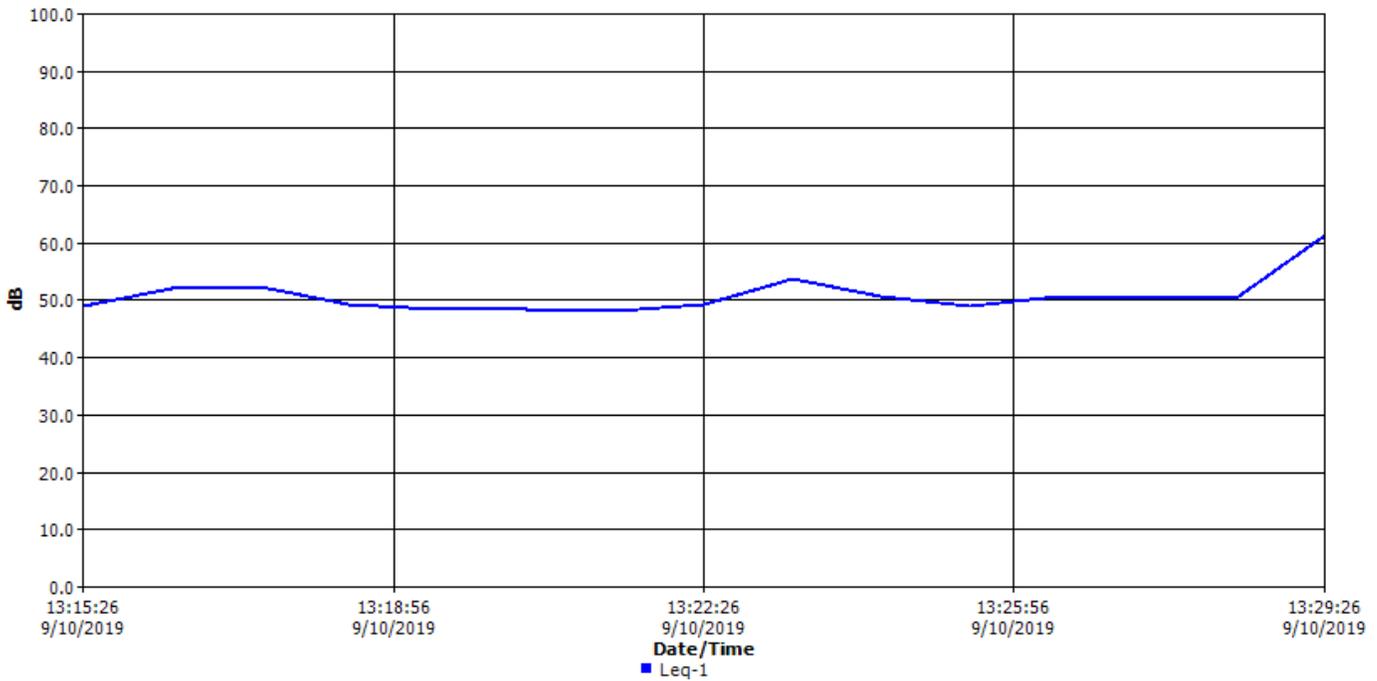
Information Panel

Name S040_BGS100001_06112019_093759
 Start Time Tuesday, September 10, 2019 13:14:26
 Stop Time Tuesday, September 10, 2019 13:29:26
 Device Model Type SoundPro DL
 Comments

General Data Panel

Description	Meter	Value	Description	Meter	Value
Leq	1	52.7 dB	Exchange Rate	1	3 dB
Weighting	1	A	Response	1	SLOW
Bandwidth	1	OFF	Exchange Rate	2	3 dB
Weighting	2	A	Response	2	SLOW

Logged Data Chart



Logged Data Table

Timestamp	Leq-1
9/10/2019 1:15:26 PM	49.0
9/10/2019 1:16:26 PM	52.1
9/10/2019 1:17:26 PM	52.2
9/10/2019 1:18:26 PM	49.1
9/10/2019 1:19:26 PM	48.2
9/10/2019 1:20:26 PM	48.4
9/10/2019 1:21:26 PM	48.1
9/10/2019 1:22:26 PM	49.1
9/10/2019 1:23:26 PM	53.6
9/10/2019 1:24:26 PM	50.5
9/10/2019 1:25:26 PM	48.8
9/10/2019 1:26:26 PM	50.5
9/10/2019 1:27:26 PM	50.2
9/10/2019 1:28:26 PM	50.3
9/10/2019 1:29:26 PM	61.2

Noise Measurement Report Form

Project: 13127 Garvey Ave Contract No (s): N/A
 Date: 9/10/19 Day of Week: Tue Time: 1:13
 Monitoring Site Number: 3 Monitoring Site Address: 13146 Parkwood Pl
 Measurement Taken By: Blaine Fric
 Approximate Wind Speed: 2 mph [km/hr] Approximate Wind Direction: From the east
 Approximate distance of Sound Level Meter from Receptor Location: 20ft
 Approximate distance of Sound Level Meter from Project Site: _____

Receptor Land Use (Check One) Residential / Institutional Commercial / Recreational
 Sound Level Meter: Make and Model: _____ Serial Number: _____
 Meter Setting A-Weighted Sound Level (SLOW) C-Weighted Sound Level (FAST) for Impacts
 Duration of Measurement: 15min
 Check the measurement purpose:
 Baseline condition Ongoing construction Major change Complaint response

Measurement Results:

Measurement Type	Measured Level	Noise Criteria Threshold	Exceedance
Calibration	<u>114</u>	n/a	n/a
L _{eq}	<u>52.8</u>		
L _{max}			
L _{dn}			
CNEL			

Field Notes:

1. On residential cul-du-sac block
2. Ambient noise driven by I-10
3. Small bi-plane flew overhead @ 1:22
4. _____

Site 3 (1308 Frazier Street)



13127 Garvey Ave_Site 4

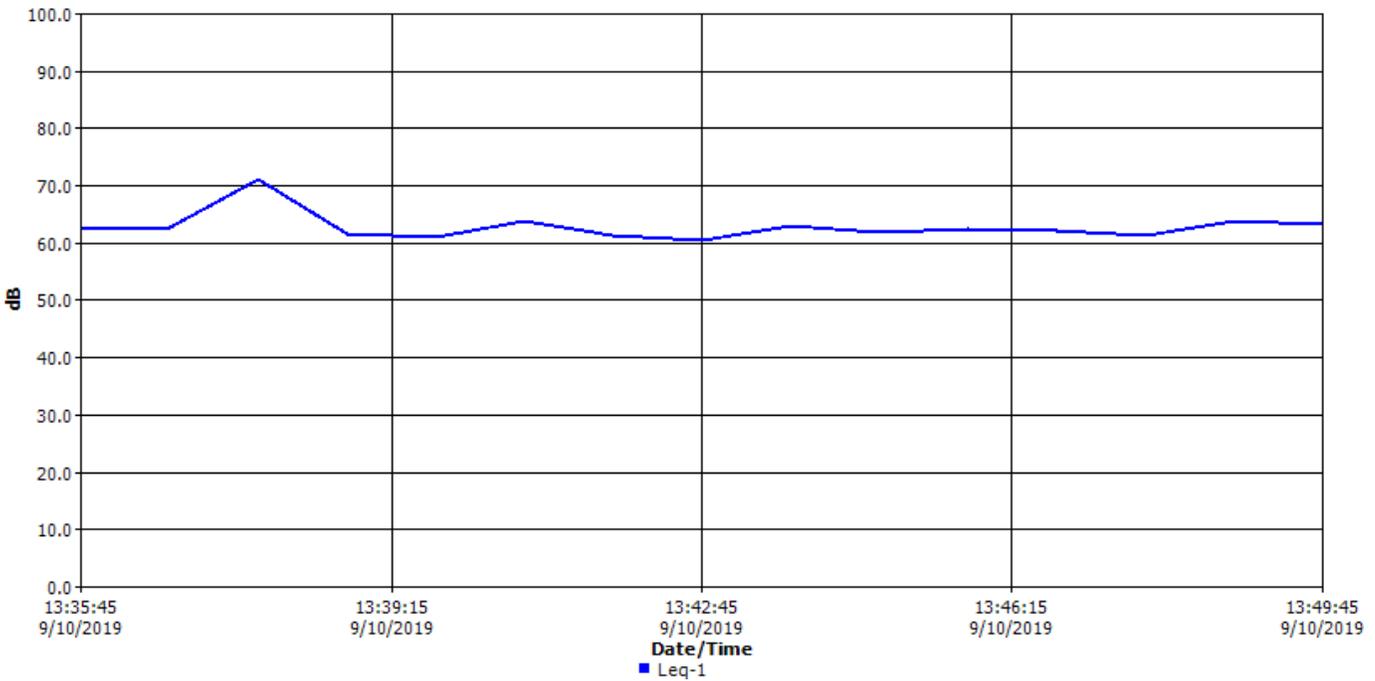
Information Panel

Name S041_BGS100001_06112019_093759
 Start Time Tuesday, September 10, 2019 13:34:45
 Stop Time Tuesday, September 10, 2019 13:49:45
 Device Model Type SoundPro DL
 Comments

General Data Panel

Description	Meter	Value	Description	Meter	Value
Leq	1	63.7 dB	Exchange Rate	1	3 dB
Weighting	1	A	Response	1	SLOW
Bandwidth	1	OFF	Exchange Rate	2	3 dB
Weighting	2	A	Response	2	SLOW

Logged Data Chart



Logged Data Table

Timestamp	Leq-1
9/10/2019 1:35:45 PM	62.2
9/10/2019 1:36:45 PM	62.7
9/10/2019 1:37:45 PM	70.9
9/10/2019 1:38:45 PM	61.4
9/10/2019 1:39:45 PM	60.9
9/10/2019 1:40:45 PM	63.6
9/10/2019 1:41:45 PM	61.1
9/10/2019 1:42:45 PM	60.4
9/10/2019 1:43:45 PM	62.9
9/10/2019 1:44:45 PM	61.7
9/10/2019 1:45:45 PM	62.4
9/10/2019 1:46:45 PM	62.1
9/10/2019 1:47:45 PM	61.3
9/10/2019 1:48:45 PM	63.6
9/10/2019 1:49:45 PM	63.3

Noise Measurement Report Form

Project: 13127 Garvey Ave Contract No (s): N/A
 Date: 9/10/17 Day of Week: Tue Time: 1:55
 Monitoring Site Number: 4 Monitoring Site Address: 13748 Fairgrove Ave
 Measurement Taken By: Blaire Frei
 Approximate Wind Speed: 3-4 mph [km/hr] Approximate Wind Direction: From the west
 Approximate distance of Sound Level Meter from Receptor Location: 20ft
 Approximate distance of Sound Level Meter from Project Site: _____

Receptor Land Use (Check One) Residential / Institutional Commercial / Recreational
 Sound Level Meter: Make and Model: _____ Serial Number: _____
 Meter Setting A-Weighted Sound Level (SLOW) C-Weighted Sound Level (FAST) for Impacts
 Duration of Measurement: 15 min
 Check the measurement purpose:
 Baseline condition Ongoing construction Major change Complaint response

Measurement Results:

Measurement Type	Measured Level	Noise Criteria Threshold	Exceedance
Calibration	<u>114</u>	n/a	n/a
Leq	<u>74.2</u>		
L _{max}			
L _{dn}			
CNEL			

Field Notes:

1. Loud car drove by when pressed Run
2. large truck drove by @ 1:56
3. Prob more traffic than usual; const. closure of Garvey divert's people onto Fairgrove
4. 1-10 still primarily ambient noise driver

Paused at 12:37 (time: 2:05 pm) so car could drive onto driveway
truck drove by @

Site 4 (13136 Parkwood Place)



13127 Garvey Ave_Site 5

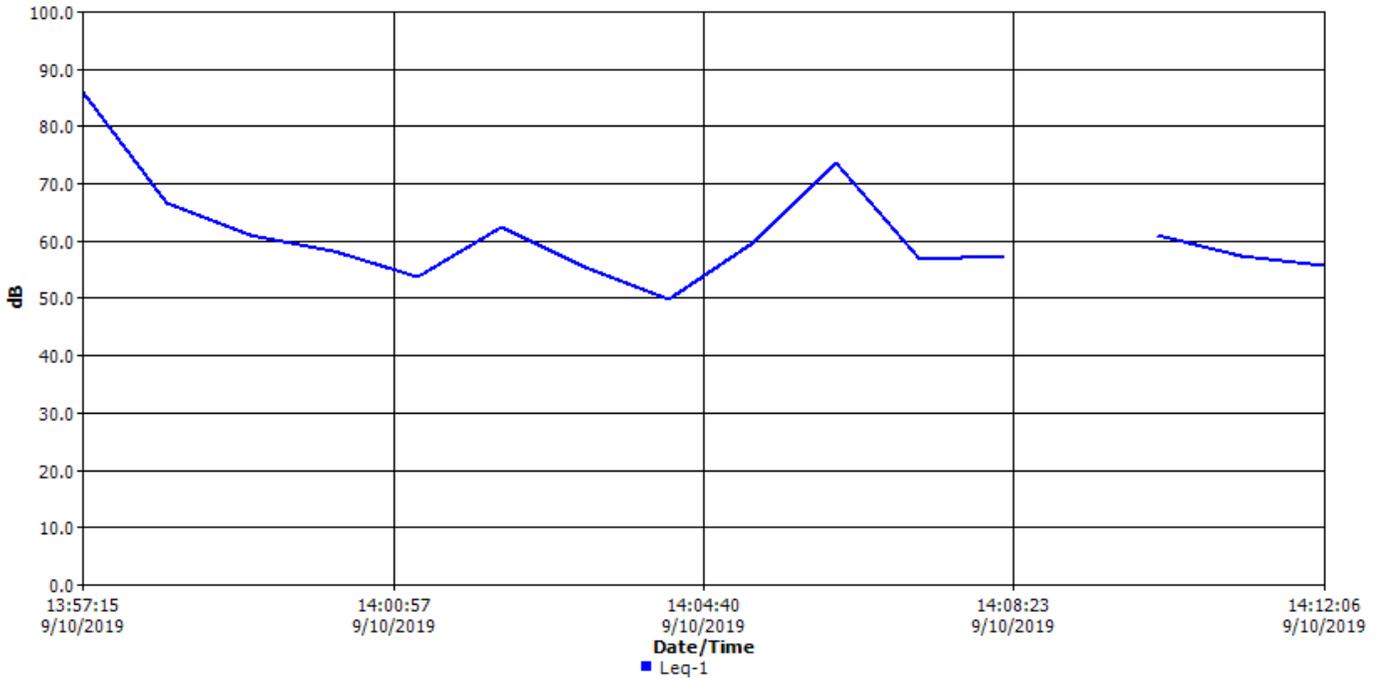
Information Panel

Name S042_BGS100001_06112019_093759
 Start Time Tuesday, September 10, 2019 13:56:15
 Stop Time Tuesday, September 10, 2019 14:12:33
 Device Model Type SoundPro DL
 Comments

General Data Panel

Description	Meter	Value	Description	Meter	Value
Leq	1	74.1 dB	Exchange Rate	1	3 dB
Weighting	1	A	Response	1	SLOW
Bandwidth	1	OFF	Exchange Rate	2	3 dB
Weighting	2	A	Response	2	SLOW

Logged Data Chart



Logged Data Table

Timestamp	Leq-1
9/10/2019 1:57:15 PM	85.8
9/10/2019 1:58:15 PM	66.6
9/10/2019 1:59:15 PM	60.8
9/10/2019 2:00:15 PM	58.0
9/10/2019 2:01:15 PM	53.7
9/10/2019 2:02:15 PM	62.2
9/10/2019 2:03:15 PM	55.2
9/10/2019 2:04:15 PM	49.6
9/10/2019 2:05:15 PM	59.6
9/10/2019 2:06:15 PM	73.6
9/10/2019 2:07:15 PM	56.8
9/10/2019 2:08:15 PM	57.2
9/10/2019 2:10:06 PM	60.8
9/10/2019 2:11:06 PM	57.2
9/10/2019 2:12:06 PM	55.6

Noise Measurement Report Form

Project: 13127 Garvey Ave Contract No (s): N/A
 Date: 9/10/19 Day of Week: Tue Time: 1:33
 Monitoring Site Number: 5 Monitoring Site Address: 1309 Frazier St.
 Measurement Taken By: Blaire Frei
 Approximate Wind Speed: 2 mph [km/hr] Approximate Wind Direction: From the east
 Approximate distance of Sound Level Meter from Receptor Location: 20ft
 Approximate distance of Sound Level Meter from Project Site: _____

Receptor Land Use (Check One) Residential / Institutional Commercial / Recreational
 Sound Level Meter: Make and Model: _____ Serial Number: _____
 Meter Setting A-Weighted Sound Level (SLOW) C-Weighted Sound Level (FAST) for Impacts
 Duration of Measurement: 15 min
 Check the measurement purpose:
 Baseline condition Ongoing construction Major change Complaint response

Measurement Results:

Measurement Type	Measured Level	Noise Criteria Threshold	Exceedance
Calibration	<u>114</u>	n/a	n/a
L _{eq}	<u>63.8</u>		
L _{max}			
L _{dn}			
CNEL			

Field Notes:

1. low car traffic along Frazier.
2. 1:40, car exited driveway adjacent to sound meter, idled next to meter ^{6ft from} until 1:46.
3. _____
4. _____

Site 5 (13134 Fairgrove Street)



Appendix C

Traffic Impact Study

TRAFFIC IMPACT STUDY

13127 Garvey Avenue
Baldwin Park, CA 91706

October 2019

Prepared For:

Terry A. Hayes Associates, Inc.
3535 Hayden Avenue, Suite 350
Culver City, CA 90232

JB91113

Rev. 3

Prepared by:



1100 Corporate Center
Drive, Suite 201
Monterey Park, CA 91754
(323) 260-4703

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1. INTRODUCTION

The proposed project includes an office, showroom, and storage building at 13127 Garvey Avenue, within the City of Baldwin Park. KOA Corporation has been retained by Terry A. Hayes Associates Inc. to analyze the potential traffic impacts associated with the Project. The scope and methodologies used for this traffic study were developed in consultation with City of Baldwin Park staff.

1.1 PROJECT DESCRIPTION

The proposed Project is a two-story commercial building of 10,345 square feet in interior floor area. The project is expected to contain 2,000 square feet of office space, a 5,518 square foot showroom and 2,540 square feet of storage.

The site plan would provide on-site parking and loading access via a single driveway connecting to the existing alleyway at the east side of the property. The alleyway has access to Frazier Street at its western terminus and to Garvey Avenue at its southern terminus.

The Project is anticipated to be completed and occupied by the end of the year 2020. The proposed Project site plan is illustrated on Figure 1.

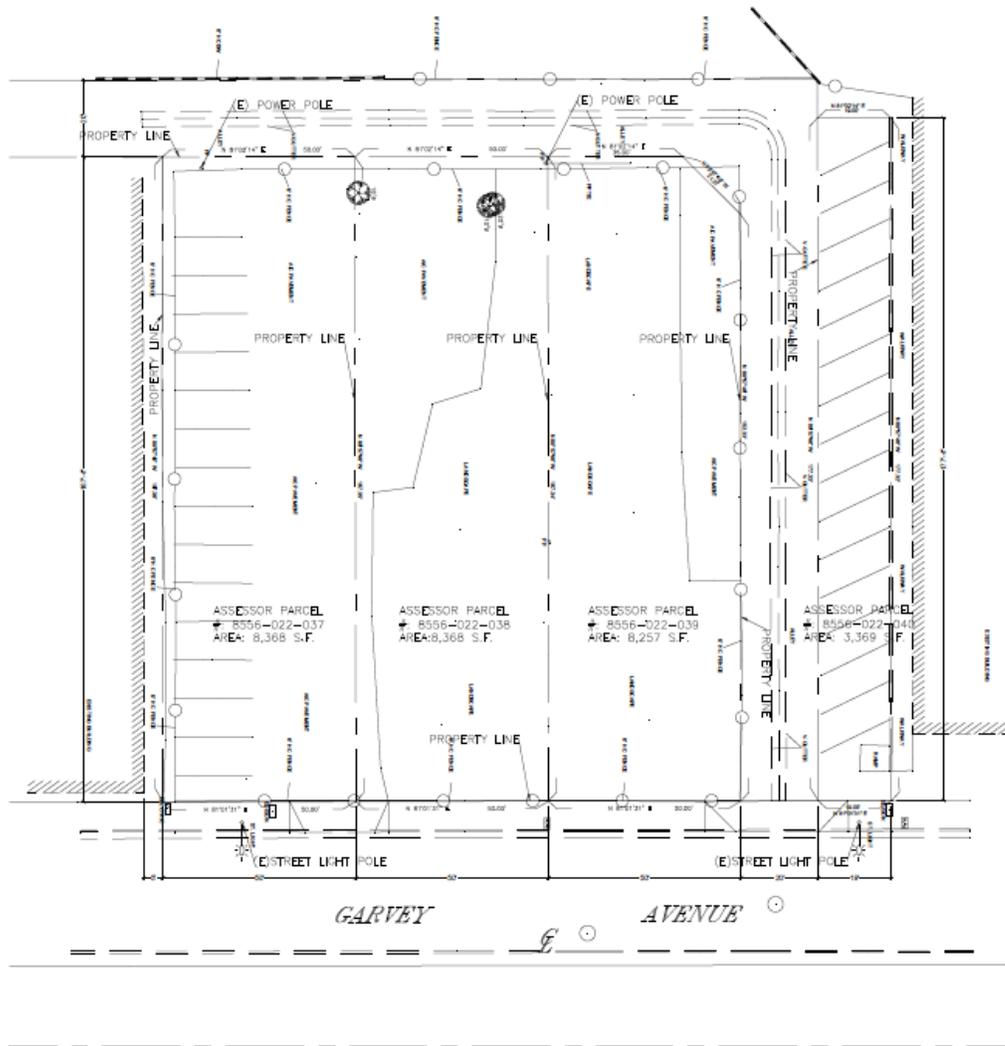
1.2 PROJECT STUDY AREA

The project study area, as defined through consultation with City staff, includes the following two study intersections:

1. Fairgrove Avenue /Garvey Avenue
2. Frazier Street / Garvey Avenue

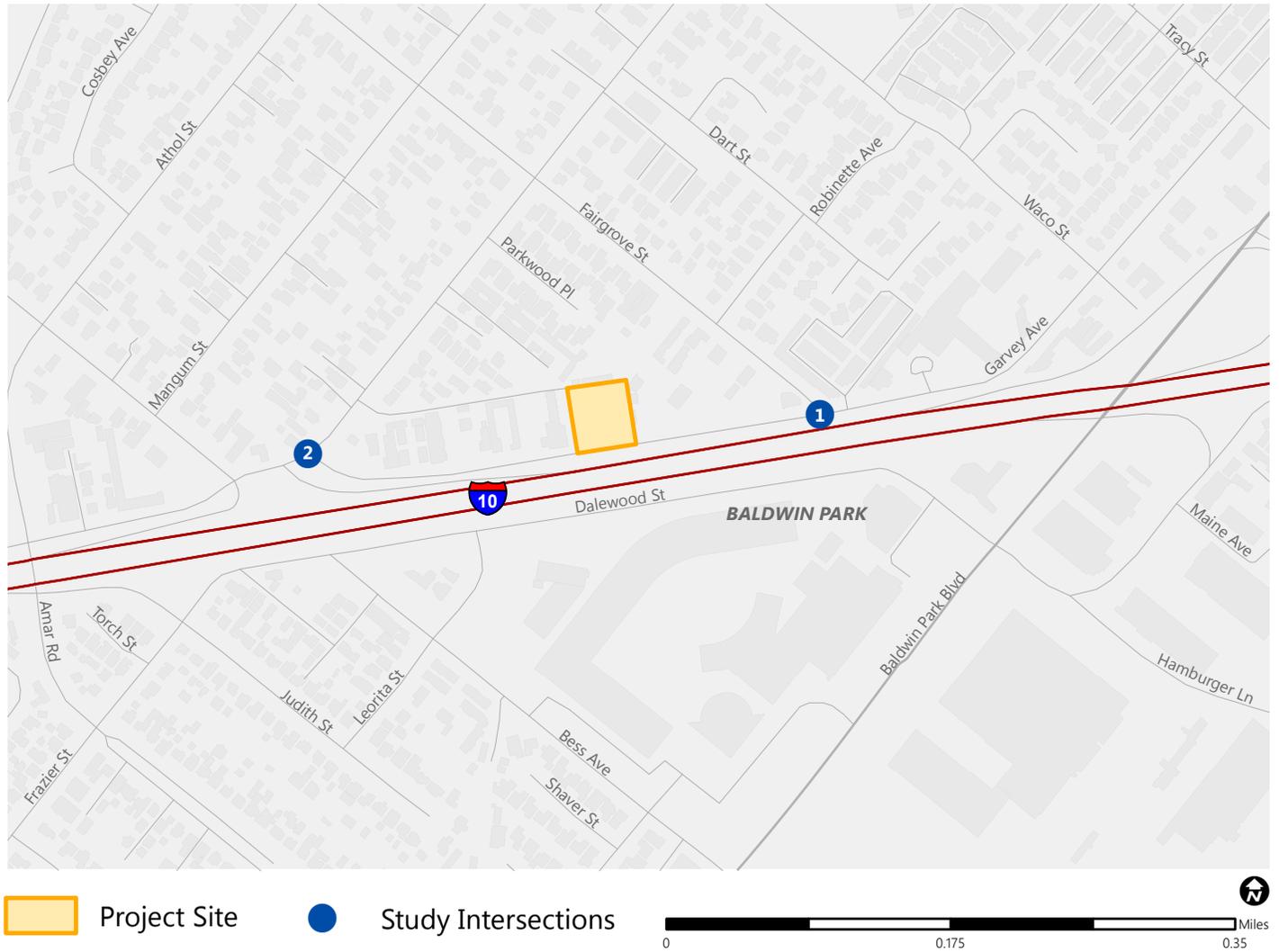
Figure 2 illustrates the study area and the locations of the study intersections.

Figure 1 – Project Site Plan



EXISTING SITE PLAN
Scale: 1/16" = 1'-0"

Figure 2 – Study Area Map



1.3 ANALYZED SCENARIOS

Traffic impacts associated with the proposed Project were analyzed at the study intersections for the weekday a.m. and weekday p.m. peak-hour periods. The study included the analysis of the following traffic scenarios:

- Existing
- Existing with-Project
- Future without-Project
- Future with-Project

1.4 ANALYSIS METHODOLOGY

KOA coordinated with city staff as the first step in the traffic analysis, in order to define the study area and other major details. The following text describes the study methodology for this report.

Existing Conditions

New traffic counts were conducted at the study intersections. The counts were used to determine existing traffic conditions. Fieldwork within the study area was undertaken to identify the condition of key study area roadways including traffic control, approach lane configurations, and on-street parking restrictions at each study intersection.

The traffic counts sources and the existing level of service (LOS) at each of the study intersections are discussed in Section 2 of this report.

Project Trip Generation and Distribution

Project trip generation was derived from rates defined by the 10th Edition of the Institute of Transportation Engineers' *Trip Generation*. The trip generation and distribution calculations are discussed in Section 3 of this report.

Existing with-Project Conditions

Based on the projected Project traffic and the traffic count totals, an existing plus-Project conditions scenario was analyzed per CEQA directives on project impact analysis under existing baseline conditions.

The level of service for existing with-Project conditions at the study intersections is discussed in Section 4 of this report.

Future without-Project Conditions

In order to account for traffic growth in the study area, an ambient/background traffic growth rate was applied to the existing traffic counts. In addition, traffic from related/area projects (approved and pending developments) was added to the study area. The levels of service at the study intersections for future without-Project conditions are discussed in Section 5 of this report.

Future with-Project Conditions

Trips from the proposed Project were added to the future without-Project volumes to define future with-

Project traffic volume conditions. The levels of service for this scenario are discussed in Section 6 of this report.

Level of Service Methodology

For analysis of level of service (LOS) at signalized intersections, the City of Baldwin Park has designated the Intersection Capacity Utilization (ICU) methodology as the desired tool. Given the two study intersections are stop controlled however, the level of service was determined using Highway Capacity Manual (HCM) 6th edition methodology for All-Way and Partial Stop-Controlled intersections.

A facility with LOS A indicates excellent operating conditions with little delay to motorists, whereas LOS F represents congested conditions with excessive vehicle delay. The upper limit of LOS E is typically defined as the operating capacity of a roadway.

Table 1 defines the level of service criteria applied to the study intersections.

**Table 1- All-Way and Partial Stop-Controlled (HCM)
Intersection Level of Service Definitions**

LOS	Average Control Delay (sec/veh)
A	0 - 10
B	10 to 15
C	15-25
D	25-35
E	35-50
F	>50

Significant Traffic Impacts

Traffic impacts are identified if a proposed development will result in a significant change in traffic conditions at a study intersection. A significant impact is typically identified if project-related traffic will cause service levels to deteriorate beyond a threshold limit specified by the overseeing agency. Impacts can also be significant if an intersection is already operating below acceptable level of service values and project traffic will cause a further decline below a threshold. Determination of potential significant traffic impacts due to the proposed Project is discussed in Section 7 of this report.

2. EXISTING CONDITIONS

This section describes the existing conditions within the study area in terms of roadway facilities, transit service and traffic operating conditions.

2.1 EXISTING ROADWAY SYSTEM

The key roadways within the study area are described here. The discussion is limited to specific roadways that traverse the study intersections and serve the Project site. Figure 3 illustrates the existing traffic controls and approach lane geometries at the study intersections.

[Garvey Avenue](#) provides one travel lane in each direction. On-street parking is generally prohibited on both sides of the roadway. The speed limit is 45 miles per hour (prima facie).

[Fairgrove Avenue](#) is classified as a Residential Street in the General Plan. This roadway provides one travel lane in each direction. On-street parking is permitted on both sides of the roadway. The speed limit is 25 miles per hour (prima facie).

[Frazier Street](#) is classified as a Collector roadway south of Francisquito Avenue in the General Plan. This roadway provides one travel lane in each direction. On-street parking is generally permitted on both sides of the roadway. The posted speed limit is 35 miles per hour.

2.2 EXISTING TRANSIT SERVICE

The Project study area is served by bus transit lines operated by the City of Baldwin Park and Foothill Transit. Table 2 summarizes the Project study area transit services.

Table 2 - Existing Transit Service Summary

Agency	Line	From	To	Via	Peak Frequency
Foothill Transit	488	El Monte Bus Station	Glendora Lakes	Ramona Boulevard, Francisquito Avenue, Glendora Avenue, Rowland Avenue, and Grand Avenue	25 minutes
Baldwin Park Shuttle	Teal	Metrolink Station	Kaiser Hospital	Ramona Boulevard, Maine Avenue, Stewart Avenue, Baldwin Park Boulevard, Frazier Street	25 minutes

Figure 3 - Existing Lane Configuration

2.3 EXISTING TRAFFIC VOLUMES

New vehicle turning movement counts were collected at the study intersections on Thursday September 19, 2019 from 7:00 a.m. to 9:00 a.m. and from 4:00 p.m. to 6:00 p.m.

The traffic count data sheets are provided in Appendix A.

2.4 EXISTING INTERSECTION LEVEL OF SERVICE

Based on the intersection lane configurations and the existing traffic volumes, vehicle delay and corresponding levels of service (LOS) were determined for each of the study intersections during the weekday a.m. and p.m. peak hours.

Table 3B summarizes the resulting vehicle delay and LOS values for existing traffic conditions.

**Table 3B- Intersection Performance –
Existing Conditions**

Study Intersections		AM Peak		PM Peak	
		Vehicle Delay (Seconds)	LOS	Vehicle Delay (Seconds)	LOS
1	Fairgrove Avenue and Garvey Avenue*	10.15	B	9.79	A
2	Frazier Street and Garvey Avenue*	12.60	B	11.48	B

LOS = Level of Service

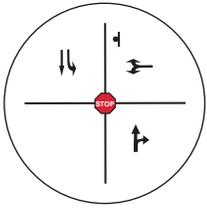
* Unsignalized Intersection, partial (One-way stop control), Delay values are based on controlled side street approaches and not primary roadway approaches where traffic is uncontrolled.

All of the study intersections currently operate at LOS B or better during the weekday a.m. and p.m. peak hours.

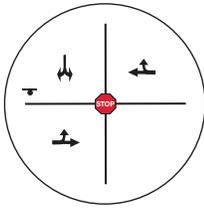
The existing weekday a.m. peak-hour and p.m. peak-hour traffic turn movement volumes are illustrated on Figure 4 of this report. The existing traffic analysis scenario LOS worksheets are provided in Appendix B.

Figure 3 – Existing Lane Configuration

#1 Frazier Street & Garvey Avenue



#2 Fairgrove Avenue & Garvey Avenue



LANE CONFIGURATION

-  Unsignalized Intersection
-  Intersection Lane Geometry
-  Stop Sign

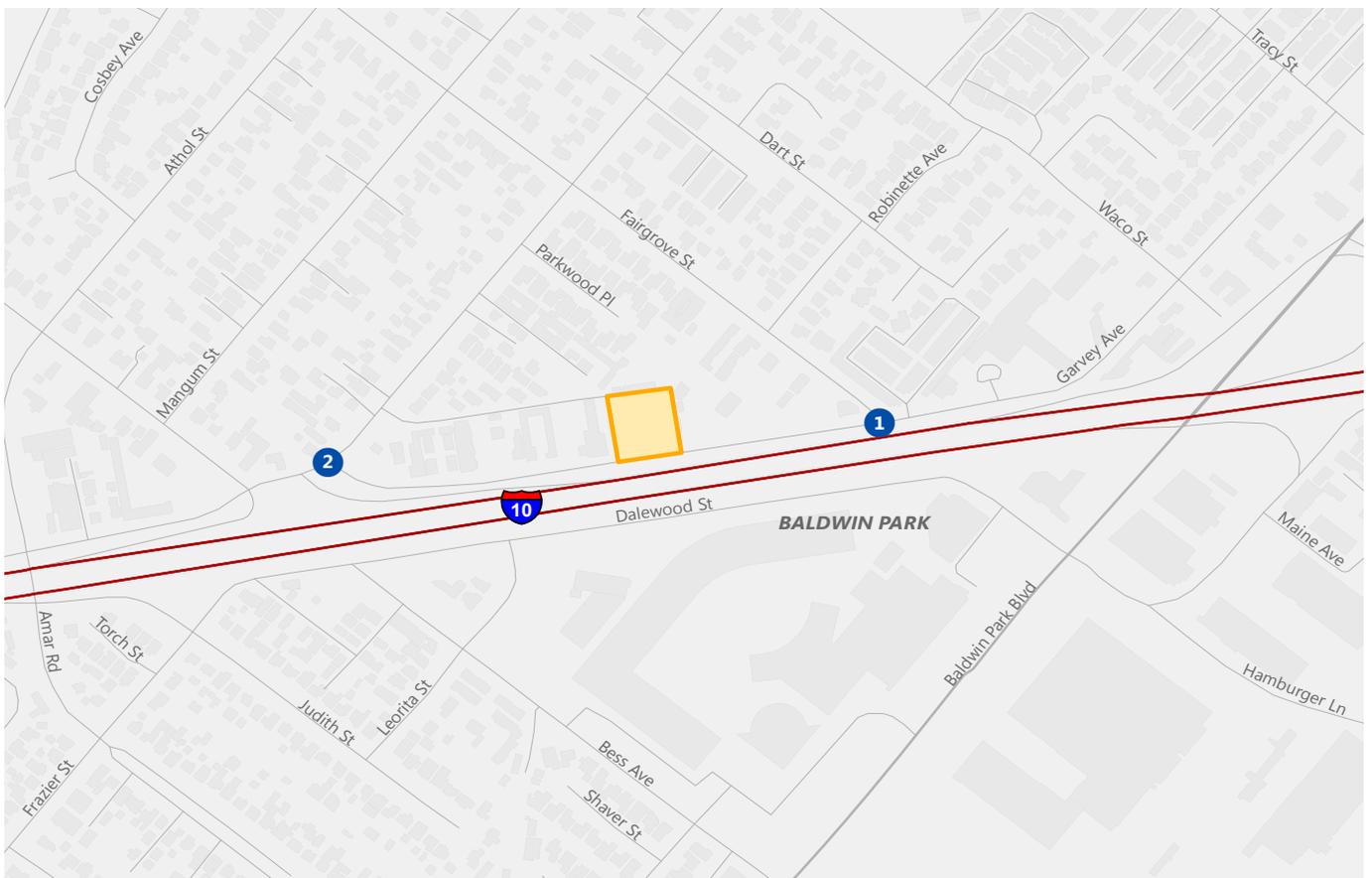
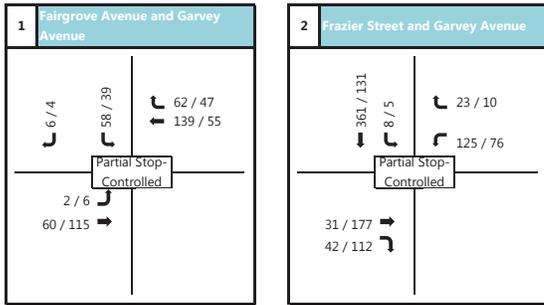
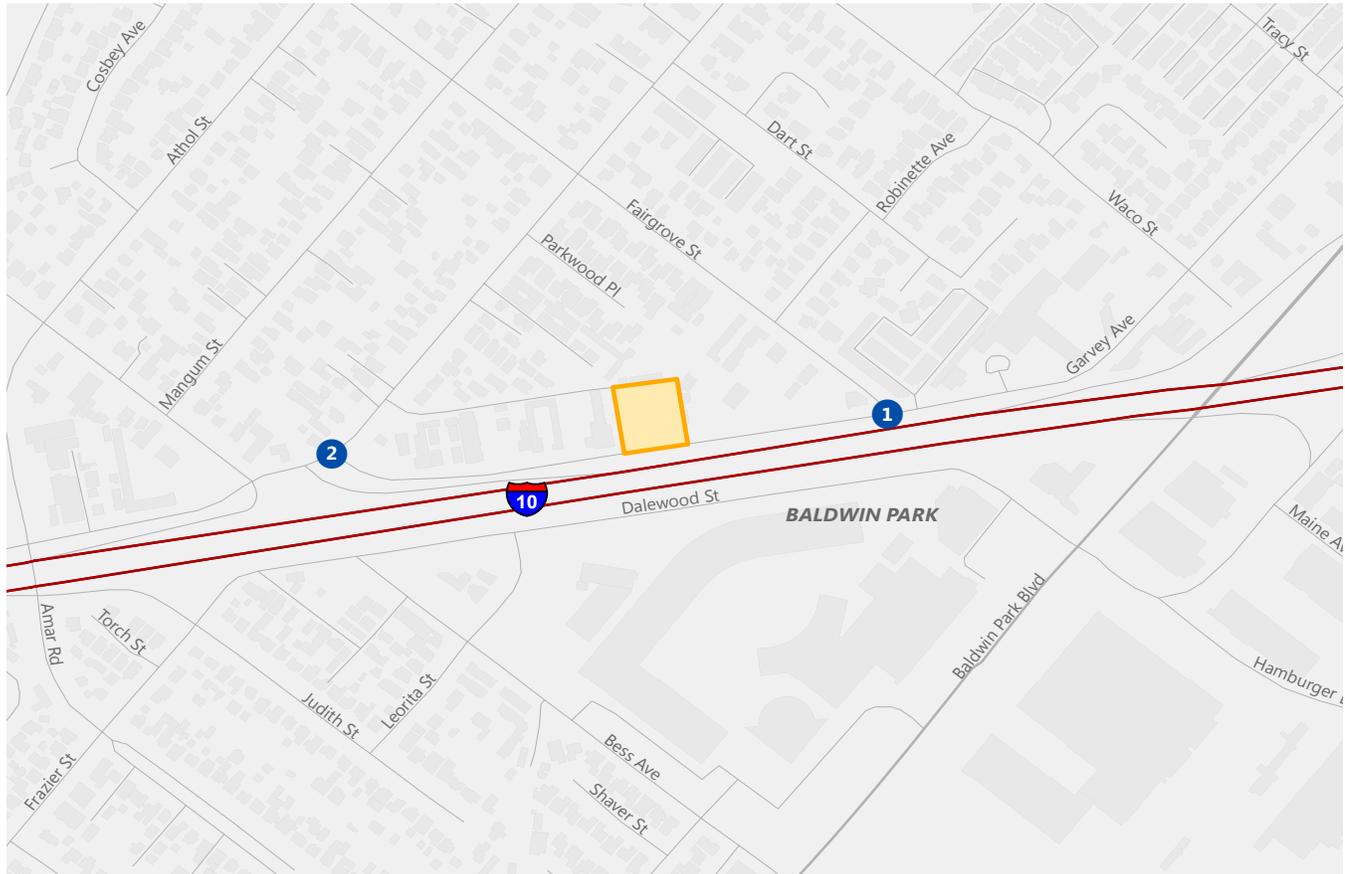


Figure 4 – Existing AM/PM Peak Hour Traffic Volumes



XX/XX AM /PM Peak Hour Traffic Volumes



3. PROJECT TRAFFIC

This section defines the traffic that would be generated by the proposed Project in a three-step process including trip generation, trip distribution and trip assignment.

3.1 PROJECT TRIP GENERATION

Trip generation of the Project was derived from rates defined by *Trip Generation, 10th Edition*, published by the Institute of Transportation Engineers. As the project site is vacant, trip generation credits for existing uses were not included.

Table 4 – Project Trip Generation–

ITE Code	Land Use	Intensity	Units	Weekday						
				Daily	AM Peak Hour		PM Peak Hour			
				Rate	Rate	In	Out	Rate	In	Out
Trip Generation Rates										
180	Specialty Trade Contractor*	-	KSF	10.22	1.66	73%	27%	1.97	32%	68%
710	General Office	-	KSF	9.74	1.16	86%	14%	1.15	16%	84%
Trip Generation Totals-New Use										
110	Specialty Trade Contractor*	8.058	KSF	82	13	9	4	16	5	11
710	General Office	2	KSF	19	3	3	0	2	0	2
Total		10		102	16	12	4	18	5	13

**Includes 2,540 square feet of storage space and a 5,518 square foot showroom.*

The project would generate 102 daily trips, including 16 vehicle trips during the a.m. peak-hour (12 inbound trips and 4 outbound trips) and 18 vehicle trips during the p.m. peak hour (5 inbound trips and 13 outbound trips).

3.2 PROJECT TRIP DISTRIBUTION

Trip distribution is the process of assigning the directions from which traffic will access the Project site. Trip distribution is dependent upon the land use characteristics of the Project, the local roadway network, and the general locations of other land uses to which Project trips would originate or terminate.

Figure 5 illustrates the trip distribution percentages at the study intersections.

3.3 PROJECT TRIP ASSIGNMENT

Based on the trip generation and distribution assumptions described above, Project traffic was assigned to the roadway system. The peak hour Project trip assignment is illustrated on Figure 6.

Figure 5 – Project Trip Distribution

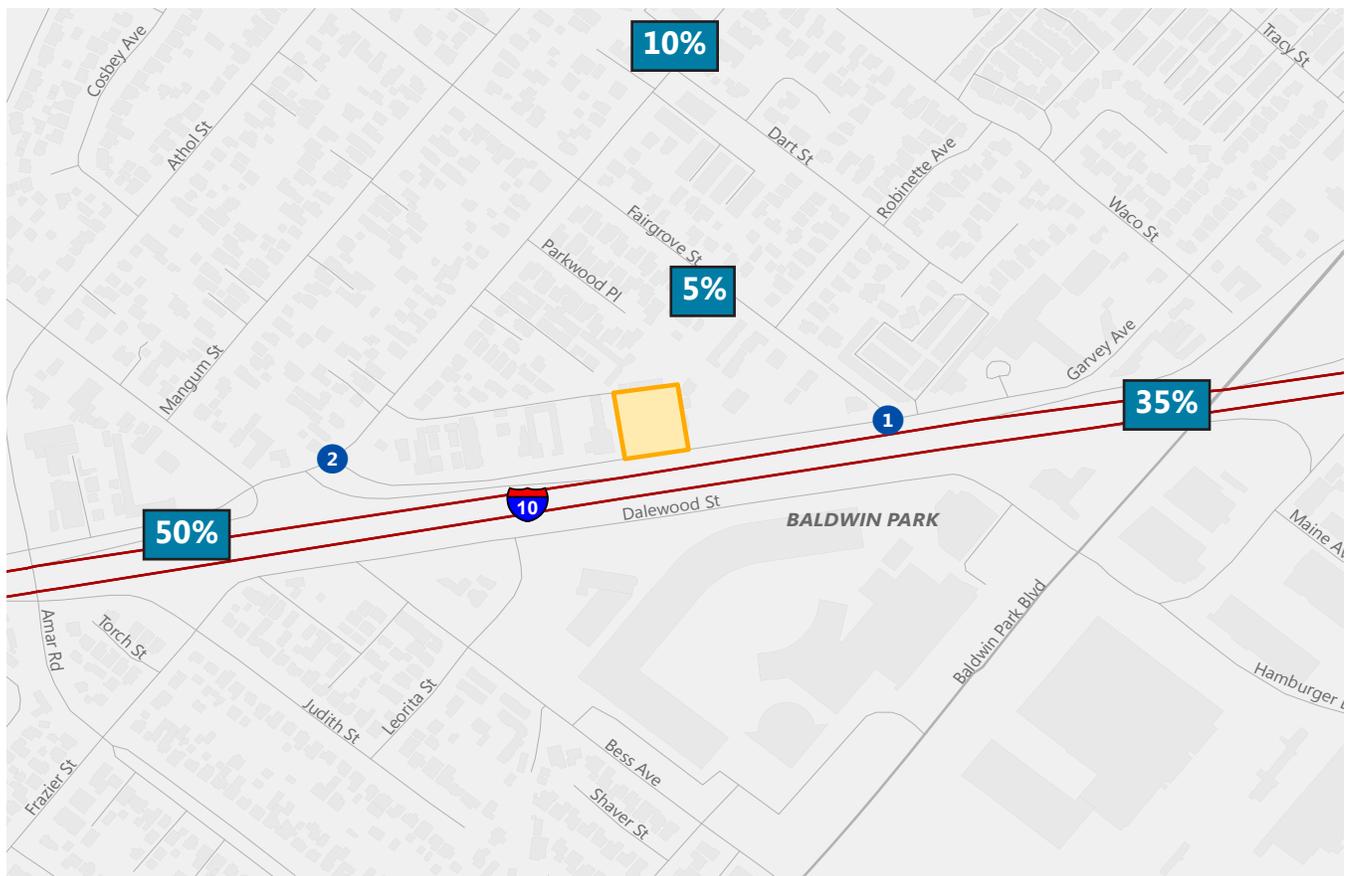
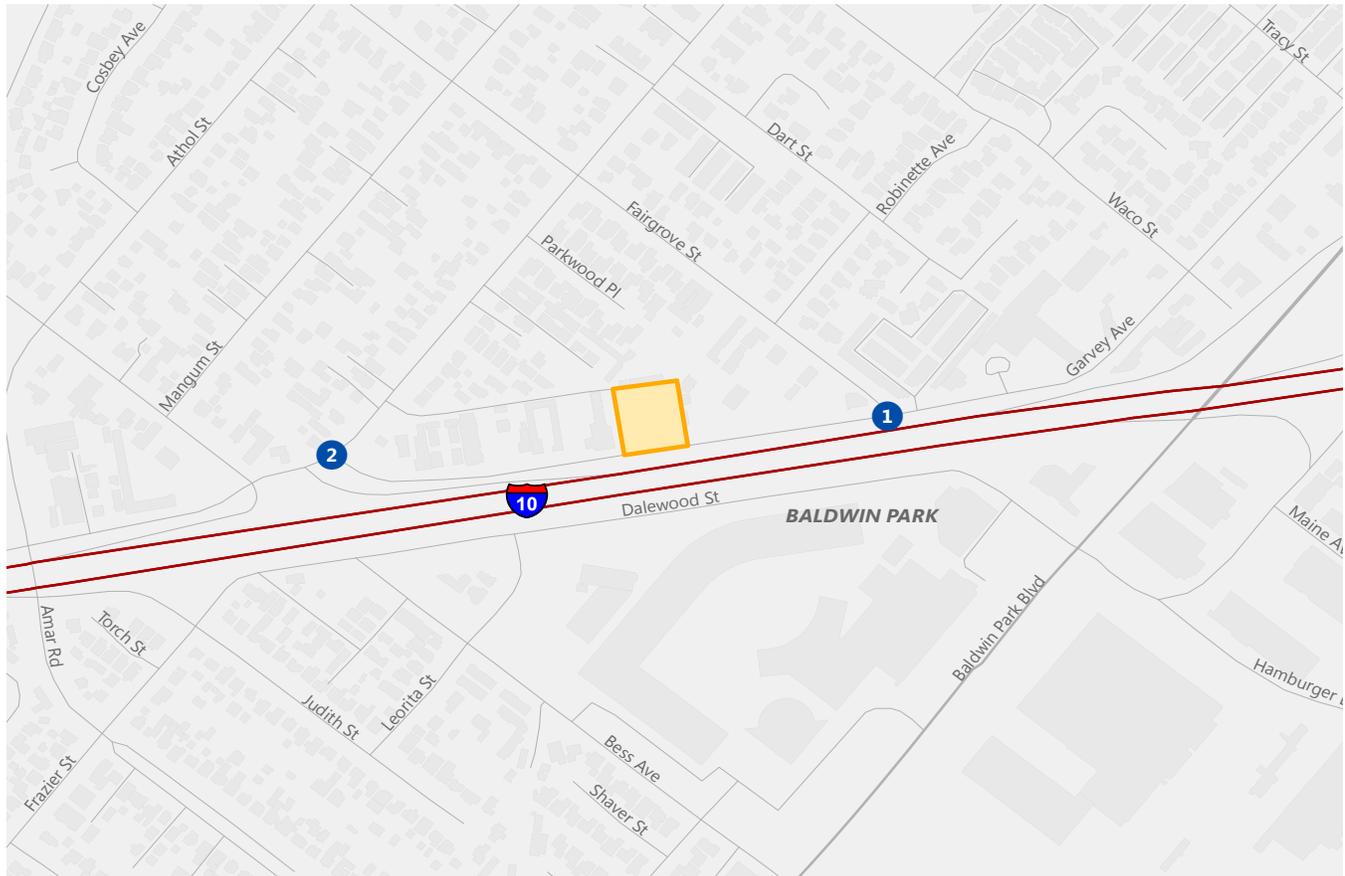
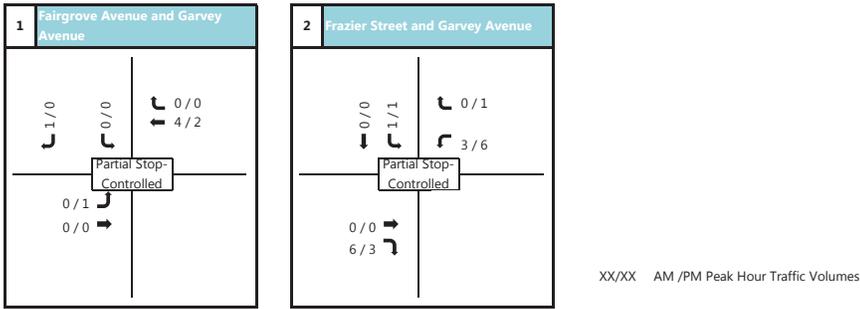


Figure 6 – Project Trip Assignment - AM/PM Peak Hour Traffic Volumes



4. EXISTING WITH PROJECT CONDITIONS

This section documents existing traffic conditions at the study intersections with the addition of Project-generated traffic. Traffic volumes for these conditions were derived by adding Project trips to the existing traffic volumes.

Table 5 summarizes the resulting vehicle delay and LOS values at the study intersections for the existing with-Project conditions.

**Table 5- Intersection Performance –
Existing With-Project**

Study Intersections		AM Peak		PM Peak	
		Vehicle Delay (Seconds)	LOS	Vehicle Delay (Seconds)	LOS
1	Fairgrove Avenue and Garvey Avenue*	10.18	B	9.82	A
2	Frazier Street and Garvey Avenue*	12.73	B	11.60	B

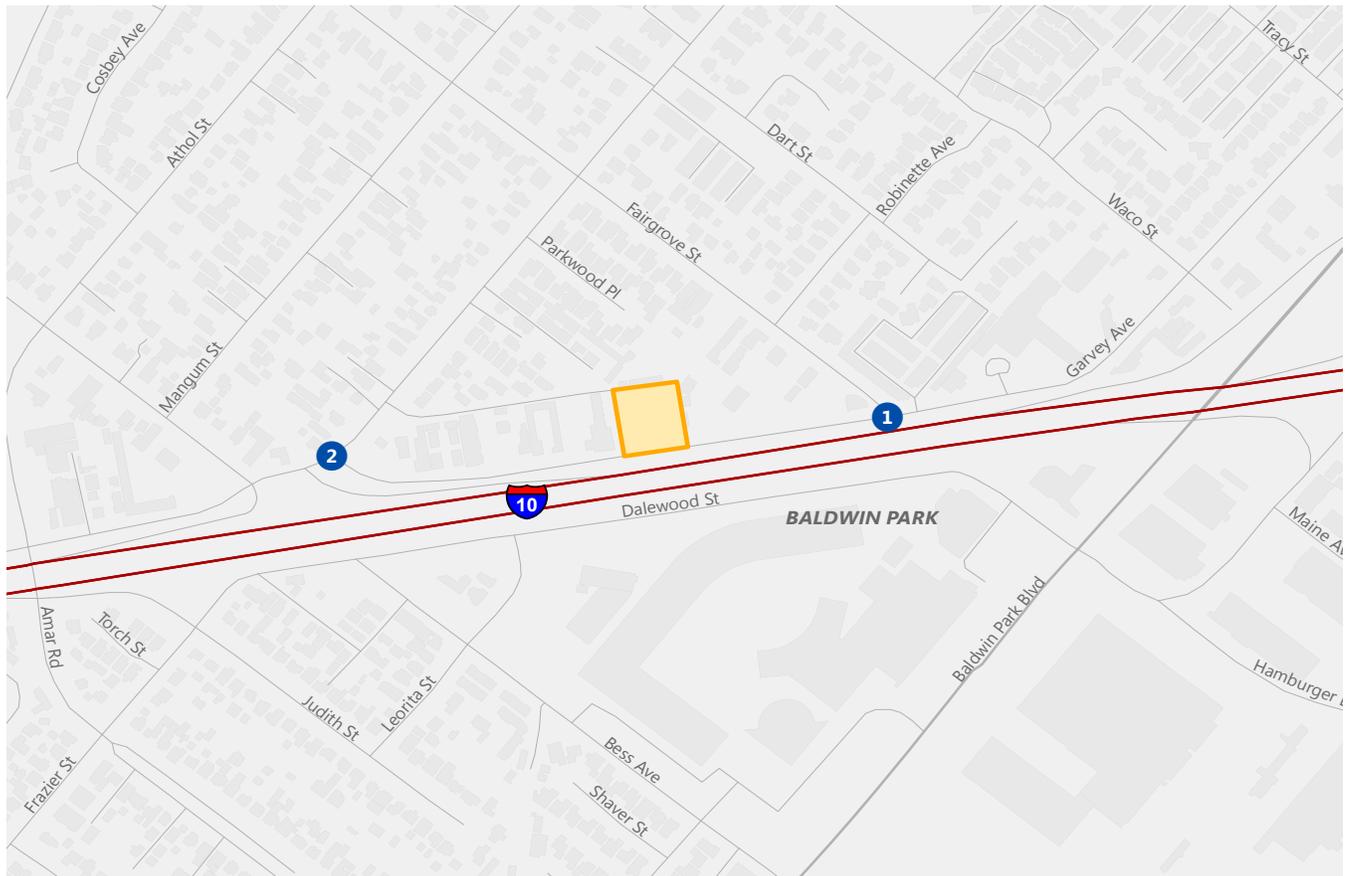
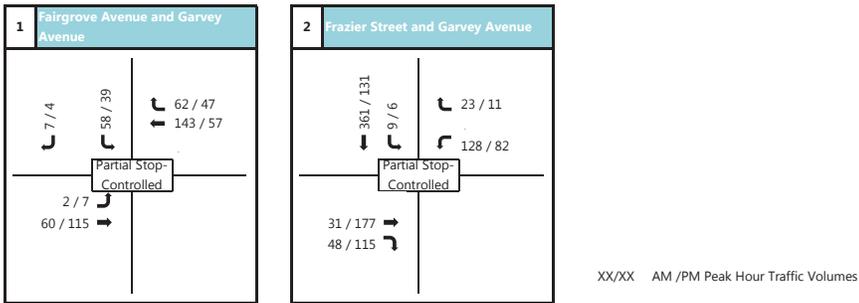
LOS = Level of Service

** Unsignalized Intersection, partial (One-way stop control), Delay values are based on controlled side street approaches and not primary roadway approaches where traffic is uncontrolled.*

Operations would not change substantially from existing conditions. All intersections would operate at LOS B or better.

The existing with-Project traffic volumes for the weekday a.m. and p.m. peak hour are illustrated on Figure 7. The existing with-Project traffic analysis worksheets for this scenario are provided in Appendix C of this report.

Figure 7 – Existing With Project - AM/PM Peak Hour Traffic Volumes



5. FUTURE WITHOUT PROJECT CONDITIONS

This section provides an analysis of future traffic conditions in the study area with area/related project trips and background growth added, but without Project traffic. The proposed Project is anticipated to be completed by 2020, and this defined the future analysis year.

5.1 AMBIENT GROWTH

In order to acknowledge regional population and employment growth outside of the study area, an ambient/background traffic growth rate was applied to the existing (year 2019) traffic counts. An annual growth rate of one percent was used for the future scenarios.

5.2 AREA PROJECTS

In addition to the application of the ambient traffic growth rate, traffic from related/area projects (approved and pending developments) was included as part of the year-2020 analysis. Thirteen related projects in the City of Baldwin Park were identified for inclusion in the traffic impact analysis.

Table 6 provides the trip generation estimates for the related/area projects that were identified during coordination with the City of Baldwin Park, and the project locations are illustrated on Figure 8.

Table 6 – Area Projects Trip Generation Estimate

ID	Location	Land Use	Units	Intensity	Daily Total	AM PEAK			PM PEAK		
						TOTAL	IN	OUT	TOTAL	IN	OUT
1	3234 Frazier Street	Multifamily - attached condos	D.U.	10	73	5	1	4	6	4	2
2	12756, 12762, 12766 and 12770 Torch Street	Multifamily - attached condos	D.U.	24	176	11	3	8	13	8	5
3	APN 8437-013-905	Multifamily - attached condos	D.U.	23	168	11	3	8	13	8	5
4	1606 Puente Ave.	Automated Carwash	KSF	1.2	170	17	9	8	17	9	8
		Convenience Store	KSF	0.358	273	22	11	11	18	9	9
5	15000 Badillo Street	Multifamily - attached condos	D.U.	16	117	7	2	5	9	6	3
6	3913 Stewart Avenue	Multifamily - attached condos	D.U.	4	29	2	0	2	2	1	1
7	4923-4929 Fortin Street , 15138 Nubia Street, and APN 8413-013-025	Single Family	D.U.	15	142	11	3	8	15	9	6
8	15110-15120 Badillo Street	Multifamily - attached condos	D.U.	12	88	6	1	5	7	4	3
9	14837-14839 Pacific Avenue; Assessor's Parcel Numbers: 8438-015-037, -043, -047, -059, -065 through -103, -060, -061, -062, -105	Single Family	D.U.	47	444	35	9	26	47	30	17
10	13853 Garvey Avenue	711 Gas Station with Convenience Store	KSF	2.961	4264	225	115	110	262	134	128
11	13018 Dalewood St	Single Family	D.U.	1	9	1	0	1	1	1	0
12	3100 Baldwin Park Blvd	Fast Food Restaurant with Drive-Thru	KSF	4.018	1892	161	82	79	131	68	63
13	4232 LA Rica Avenue	Multifamily - attached condos	D.U.	5	37	2	0	2	3	2	1
TOTAL					7882	516	239	277	544	293	251

The area project trip assignment volumes for the a.m. and p.m. peak hours are provided on Figure 9.

Figure 8 – Location of Related Projects

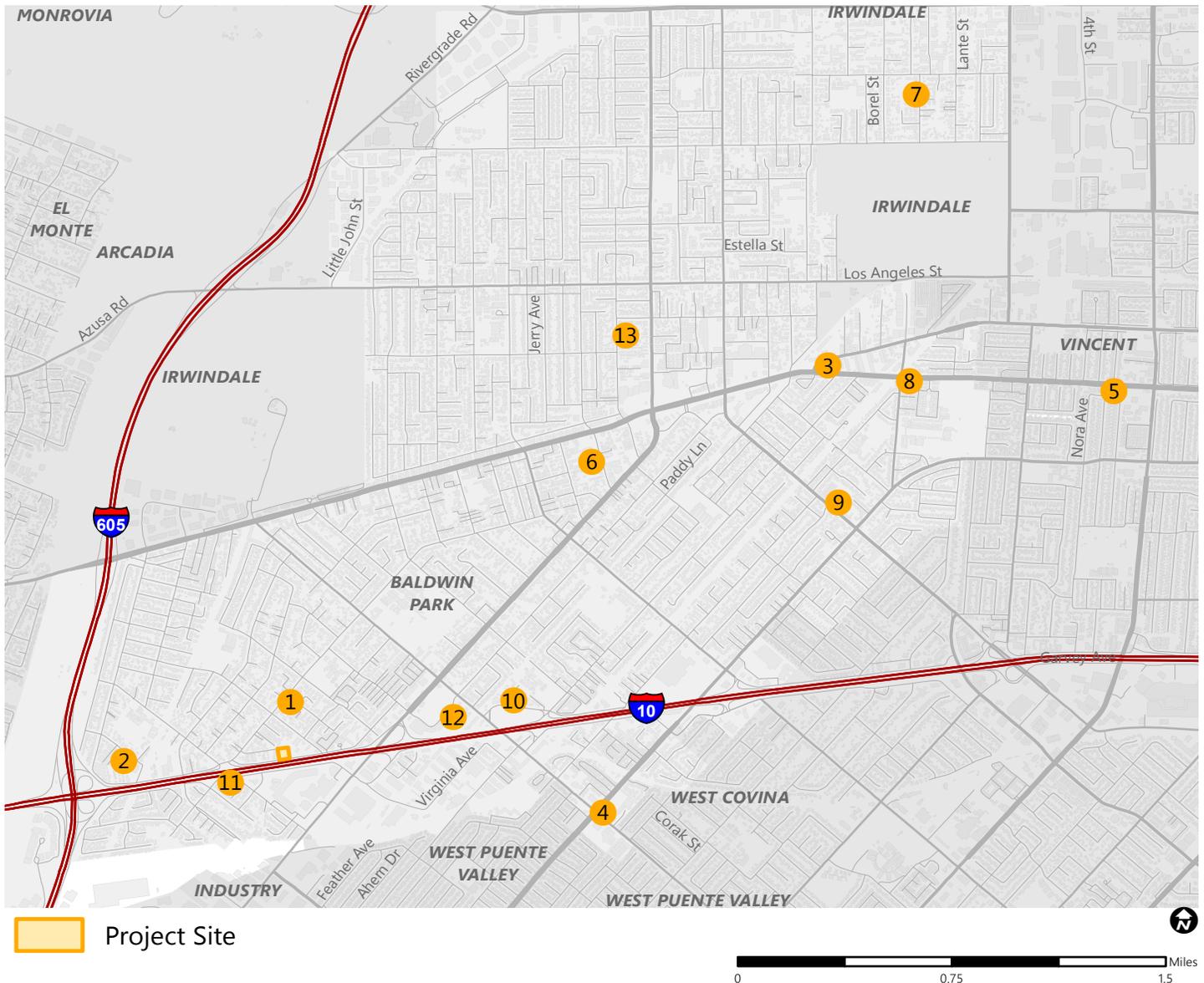
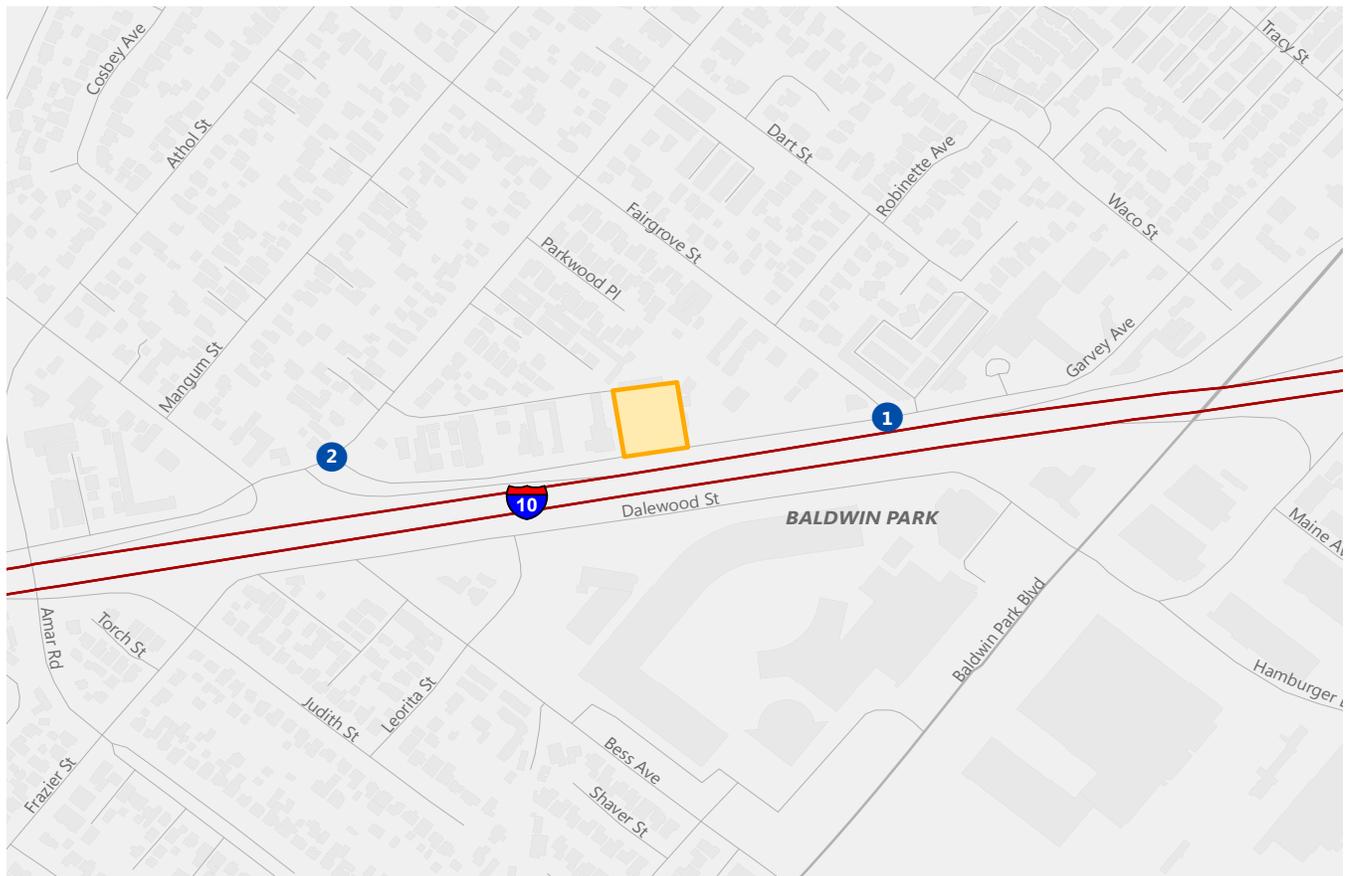
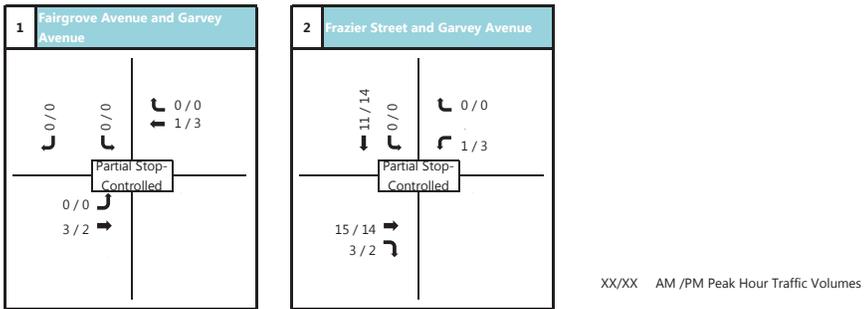


Figure 9 – Area Project Trip Assignment - AM/PM Peak Hour Traffic



5.3 FUTURE WITHOUT PROJECT INTERSECTION LEVEL OF SERVICE

Table 7 summarizes the resulting vehicle delay and LOS values at the study intersections under this scenario.

**Table 7 – Intersection Performance –
Future without-Project**

Study Intersections		AM Peak		PM Peak	
		Vehicle Delay (Seconds)	LOS	Vehicle Delay (Seconds)	LOS
1	Fairgrove Avenue and Garvey Avenue*	10.20	B	9.83	A
2	Frazier Street and Garvey Avenue*	13.05	B	11.86	B

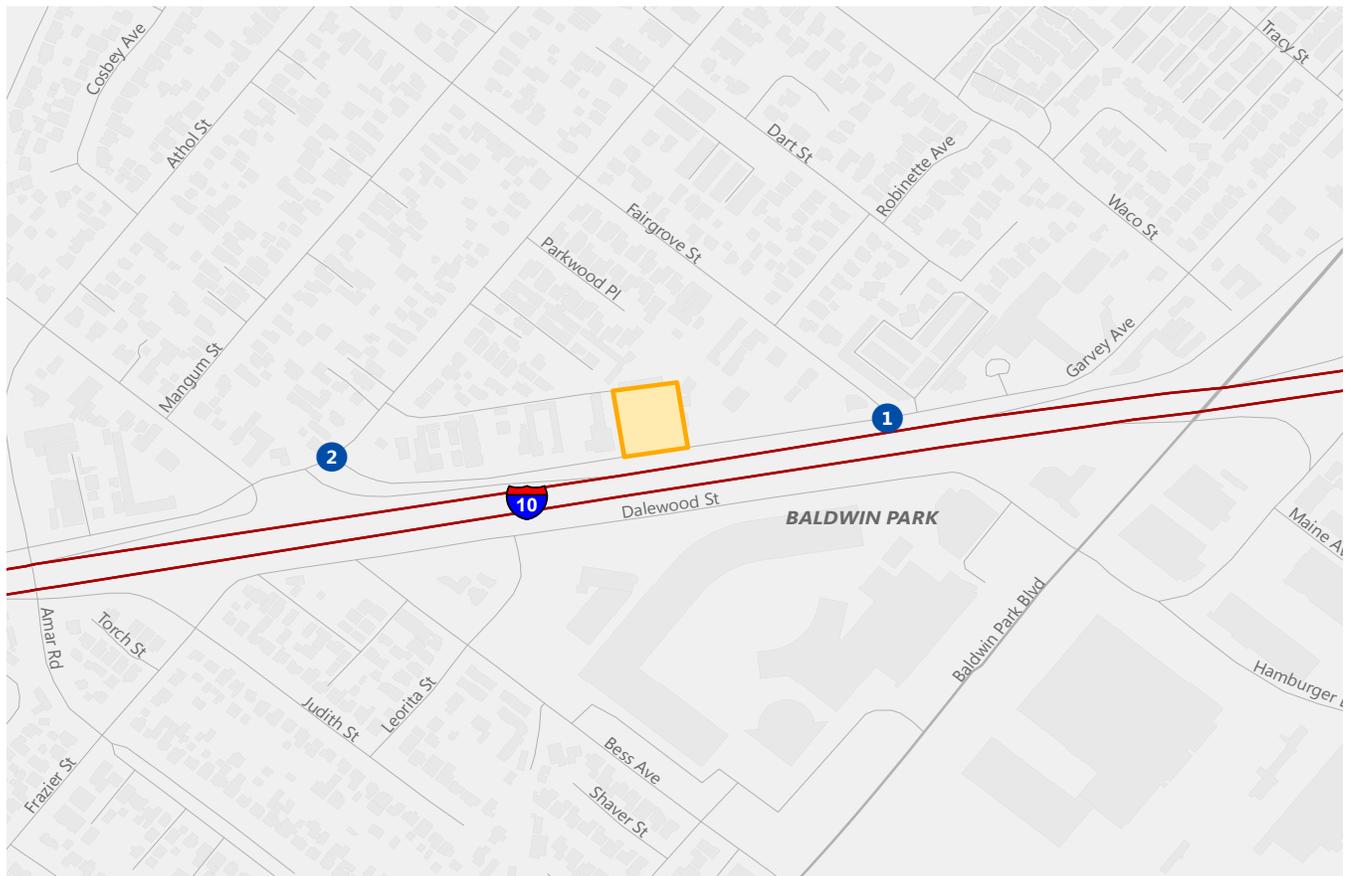
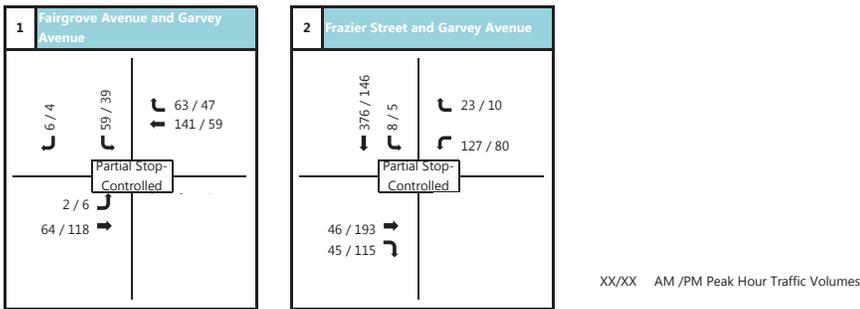
LOS = Level of Service

*Unsignalized Intersection, partial (One-way stop control), Delay values are based on controlled side street approaches and not primary roadway approaches where traffic is uncontrolled.

All of the study intersections would operate at LOS B or better during both peak periods.

The future without-Project traffic volumes for the weekday a.m. and p.m. peak hour are illustrated on Figure 10. The future without-Project traffic analysis worksheets are provided in Appendix D of this report.

Figure 10 – Future Without Project - AM/PM Peak Hour Traffic Volumes



6. FUTURE WITH PROJECT CONDITIONS

This section documents future traffic conditions at the study intersections with the addition of Project-generated traffic. Traffic volumes for these conditions were derived by adding Project trips to the future without-Project scenario volumes.

Table 8 summarizes the resulting vehicle delay and LOS values at the study intersections for future with-Project traffic conditions.

**Table 8 – Intersection Performance –
Future with-Project**

Study Intersections		AM Peak		PM Peak	
		Vehicle Delay (Seconds)	LOS	Vehicle Delay (Seconds)	LOS
1	Fairgrove Avenue and Garvey Avenue*	10.23	B	9.86	A
2	Frazier Street and Garvey Avenue*	13.20	B	11.99	B

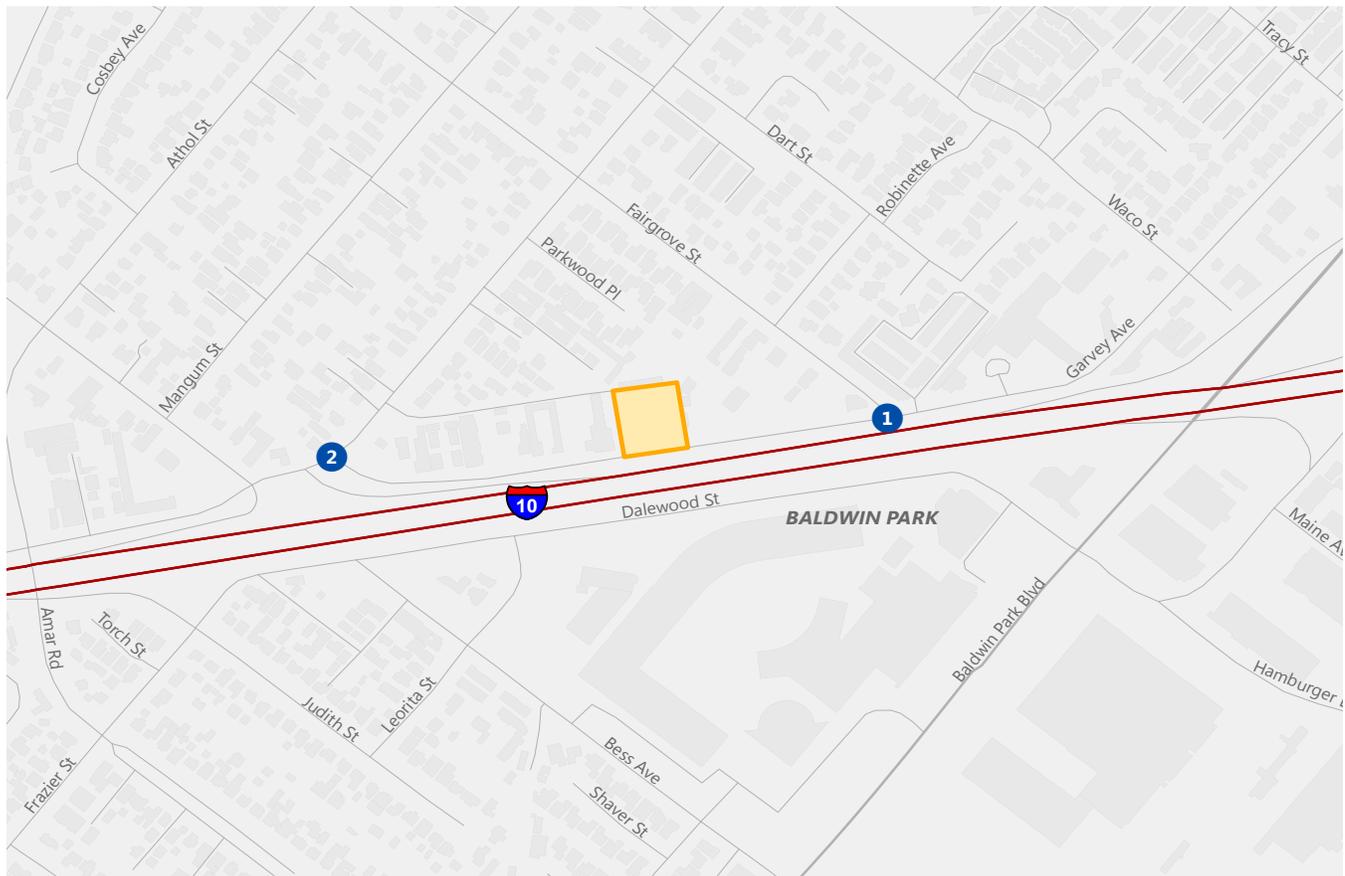
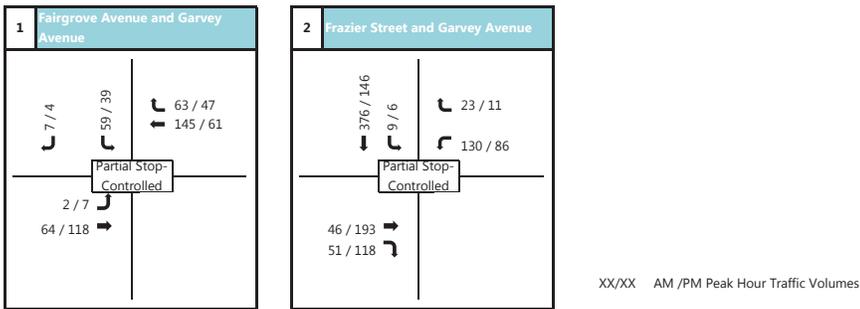
LOS = Level of Service

** Unsignalized Intersection, partial (One-way stop control), Delay values are based on controlled side street approaches and not primary roadway approaches where traffic is uncontrolled.*

As in the future without project scenario, both intersections would continue to operate at a LOS of B or better during the a.m. and p.m. peak hour period.

The future with-Project traffic volumes for the weekday a.m. and p.m. peak hour are illustrated on Figure 11. The future with-Project traffic analysis worksheets are provided in Appendix E of this report.

Figure 11 – Future With Project - AM/PM Peak Hour Traffic Volumes



7. PROJECT TRAFFIC IMPACTS

7.1 DETERMINATION OF TRAFFIC IMPACTS

Traffic impacts occur if a proposed development will result in significant changes in traffic conditions at a study location. A significant impact is typically identified if project-related traffic will cause LOS to deteriorate beyond a threshold limit specified by the reviewing agency. Impacts can also be significant if an intersection is already operating below the acceptable level of service and project traffic will cause a further decline in operations beyond the threshold.

The City of Baldwin Park does not have established impact standards for unsignalized intersections. For this study, causing or worsening of LOS E or F conditions due to the Project was considered to be significant.

7.2 PROJECT TRAFFIC IMPACTS – EXISTING PLUS PROJECT

Table 9 provides a summary of the Project impacts under existing conditions. Traffic impacts created by the proposed Project were determined by comparing the existing scenario conditions to the existing with-Project scenario conditions.

The proposed Project would not create any significant traffic impacts at the study intersections under existing with-Project conditions, during either the weekday a.m. or p.m. peak hour. Project mitigation measures, therefore, are not recommended for existing conditions.

Table 9 – Determination of Project Impacts – Existing With-Project Conditions

Study Intersections	Peak Hour	Existing (2019) Conditions		Existing (2019) + Project		Change in Delay	Sig Impact?
		Vehicle Delay (Seconds)	LOS	Vehicle Delay (Seconds)	LOS		
1 Fairgrove Avenue and Garvey Avenue*	AM	10.15	B	10.18	B	0.03	No
	PM	9.79	A	9.82	A	0.03	No
2 Frazier Street and Garvey Avenue*	AM	12.60	B	12.73	B	0.13	No
	PM	11.48	B	11.60	B	0.12	No

LOS = Level of Service, V/C = Volume-to-Capacity Ratio

* Unsignalized Intersection, partial (One-way stop control), Delay values are based on controlled side street approaches and not primary roadway approaches where traffic is uncontrolled.

7.3 PROJECT TRAFFIC IMPACTS – FUTURE WITH PROJECT

Table 10 provides a summary of the Project impacts under future conditions. Traffic impacts created by the Project were determined by comparing the future without-Project conditions to the future with-Project conditions.

The proposed Project would not create any significant traffic impacts at the study intersections under future with-Project conditions, during either the weekday a.m. or p.m. peak hour. Project mitigation measures, therefore, are not recommended for future conditions.

Table 10 – Determination of Project Impacts – Future With-Project

Study Intersections	Peak Hour	Existing (2019) Conditions		Future (2020) No Project		Future (2020) With Project		Change in Delay	Sig Impact?
		Vehicle Delay (Seconds)	LOS	Vehicle Delay (Seconds)	LOS	Vehicle Delay (Seconds)	LOS		
1 Fairgrove Avenue and Garvey Avenue*	AM	10.15	B	10.20	B	10.23	B	0.03	No
	PM	9.79	A	9.83	A	9.86	A	0.03	No
2 Frazier Street and Garvey Avenue*	AM	12.60	B	13.05	B	13.20	B	0.15	No
	PM	11.48	B	11.86	B	11.99	B	0.13	No

LOS = Level of Service, V/C = Volume-to-Capacity Ratio

* Unsignalized Intersection, partial (One-way stop control), Delay values are based on controlled side street approaches and not primary roadway approaches where traffic is uncontrolled.

7.4 ALL-WAY STOP WARRANT ANALYSIS

An all-way stop-sign warrant analysis was conducted at the study intersection of Garvey Avenue and Fairgrove Avenue using average daily traffic (ADT) volumes, radar-based speed survey data, collision data from the UC Berkeley TIMS Database, as well as peak-hour turning movement volumes from the main analysis data, for future without-Project and with-Project conditions.

- A review of collision data from the *UC Berkeley TIMS* database indicated that the location had zero collisions from 01/01/2018 to 12/31/2018.
- The highest vehicular volume entering the intersection from both major street approaches per hour within an eight-hour time frame currently averages 147 vehicles per hour from 7:00 AM to 3:00 and does not meet the minimum requirement of 300 vehicles per hour.
- Under existing plus project conditions, applying the peak-hour trips assignment value of four, the average hourly volume would be 151 which would be below the 300 vehicle requirement. Under future with-Project conditions, the growth rate of 1.01 would increase the volume to 153, and adding four project trips and four area project trips for the major approaches would result in a total of 156.
- The peak-hour turning volume counts were applied to the analysis. The highest combined vehicular, pedestrian, and bicycle volume entering the intersection from the minor approach during the lowest peak hour is currently 43 vehicles per hour in the p.m. peak hour, with zero pedestrians and zero bicyclists. This does not meet the minimum required average of 200 units per hour. The standard for intersection approach delay is also not satisfied, with 10.15 seconds of analyzed delay during the a.m. peak-hour period.
- Under existing plus-project conditions, the project would add zero trips at the minor approach during the a.m. peak-hour period and therefore the 43 vehicles per hour total would remain the same.
- The 85th-Percentile speed on Garvey Avenue (major street) exceeds the 40 mph threshold with a combined 43 MPH average for both approaches, therefore with the 70% thresholds for part C.1 and part C.2 being 210 and 140, respectively, the value from C.1 would not meet the threshold, and the value from C.2 would not meet the requirement with a combined value of 43.
- Under existing with-project conditions, the criteria for C.1 would remain unmet and the criteria for C.2 would also remain unmet. C.2 would remain unmet for future with-project conditions including combined vehicular, pedestrian, and bicyclist units.

In conclusion, the warrant is not satisfied because there are no reported collisions within the 12 month period, and for part C.2 volumes not meet minimum requirements under existing, existing plus Project or future with-Project conditions.

ADT volumes applied to this analysis are provided in Appendix F, radar speed data is provided in Appendix G, pedestrian and bicycle counts are provided on Appendix H, and peak hour-volumes are referenced in the LOS analysis scenarios.

7.5 SIGHT DISTANCE AT ALLEYWAY/GARVEY INTERSECTION

Sight distance conditions at the alleyway intersection with Garvey Avenue, the primary project site access point to the local roadway system, was analyzed based on standards in the Caltrans Highway Design Manual. The photos below provide views of typical sight distance for a vehicle, for both directions of Garvey Avenue, at this location.



The Highway Design Manual, in Table 201.1 Sight Distance Standards, defines the sight distance for roadways based on design speeds. Based on the 45 mph posted speed on Garvey Avenue, the design speed would be 50 mph. The stopping distance within the table related to the 50 mph speed is 430 feet.

From the project driveway, the 430 feet distance would not extend to any horizontal curves to the east of the alleyway intersection. To the west, the distance would reach the beginning of a slight curve but visibility would not be impaired.

8. CONGESTION MANAGEMENT PROGRAM

This section provides study conformance with the regional impact analysis procedures mandated by the County of Los Angeles Congestion Management Program (CMP).

The CMP was created statewide because of Proposition 111 and was implemented locally by the Los Angeles County Metropolitan Transportation Authority (Metro). The CMP for Los Angeles County requires that the traffic impact of individual development projects of potentially regional significance be analyzed. A specific system of arterial roadways plus all freeways comprises the CMP system. Per CMP Transportation Impact Analysis (TIA) Guidelines, a traffic impact analysis is conducted:

- At CMP arterial monitoring intersections, including freeway on-ramps or off-ramps, where the proposed Project will add 50 or more vehicle trips during either a.m. or p.m. weekday peak hours.
- At CMP mainline freeway-monitoring locations, where the Project will add 150 or more trips, in either direction, during the either the a.m. or p.m. weekday peak hours.

Based on the trip generation defined in Table 4, it is not expected that 50 or more new Project trips per hour would be added to the nearest CMP intersections. Therefore, no further analysis of potential CMP impacts is required.

- CMP ID 142- Garvey Avenue and Rosemead Boulevard, approximately 4.5 miles west of the Project site
- CM ID 158 – Azusa Avenue and Cameron Avenue, approximately 4.6 miles southeast of the Project site
- CMP ID 159 – Azusa Avenue and Workman Avenue, approximately 4.6 miles northeast of the Project site

In addition, the proposed Project is expected to add less than 150 new trips per hour, in either direction, to the I-10 (San Bernardino) and I-605 (San Gabriel River) freeway segments based on the Project trip generation defined in Table 4. Therefore, no further analysis of CMP freeway monitoring stations is required.

- CMP Station 1018 – east of Puente Avenue, 1.5 miles east of the site
- CMP Station 1077 – at San Gabriel River Bridge, 2.3 miles north of the site

9. ANALYSIS SUMMARY AND CONCLUSION

The following summarizes the traffic study conclusions and recommendations:

Project Background

- The proposed Project is a two-story commercial building containing 2,000 square feet of office space, a 5,518 square foot showroom, and 2,540 square feet of storage, to be located on Garvey Avenue, to the east of Frazier Street.
- 33 parking spaces were required for this project and a total of 35 parking spaces are expected to be provided for the Project.
- The proposed site is currently unoccupied, and the Project is anticipated to be completed and occupied by the end of the year 2020.

Project Trip Generation

- Trip generation of the Project was derived from the 10th Edition of the Institute of Transportation Engineers' *Trip Generation*.
- The project would generate 102 daily trips, including 16 vehicle trips during the a.m. peak-hour (12 inbound trips and 4 outbound trips) and 18 vehicle trips during the p.m. peak hour (5 inbound trips and 13 outbound trips).

Traffic Impacts

- Based on the applied significant traffic impact criteria, the proposed Project would not create any significant traffic impacts at the study intersections under existing with-Project and future with-Project conditions. Therefore, mitigation measures are not recommended.
- The proposed Project is not anticipated to cause a significant traffic impact on any CMP arterial monitoring intersections and mainline freeway-monitoring locations.
- The all-way stop-sign warrant analysis indicated that new traffic controls would not be justified.

APPENDIX A
Traffic Count Data

City of Baldwin Park
 N/S: Fairgrove Avenue
 E/W: Garvey Avenue
 Weather: Clear

File Name : 01_BLD_Fairgrove_Garvey AM
 Site Code : 04219654
 Start Date : 9/19/2019
 Page No : 1

Groups Printed- Total Volume

Start Time	Fairgrove Avenue Southbound			Garvey Avenue Westbound			Garvey Avenue Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
07:00 AM	6	2	8	47	6	53	0	5	5	66
07:15 AM	19	2	21	37	4	41	0	10	10	72
07:30 AM	20	1	21	31	16	47	1	16	17	85
07:45 AM	16	1	17	44	25	69	0	16	16	102
Total	61	6	67	159	51	210	1	47	48	325
08:00 AM	3	2	5	27	17	44	1	18	19	68
08:15 AM	6	2	8	27	4	31	0	10	10	49
08:30 AM	6	0	6	18	10	28	1	14	15	49
08:45 AM	4	0	4	14	7	21	0	11	11	36
Total	19	4	23	86	38	124	2	53	55	202
Grand Total	80	10	90	245	89	334	3	100	103	527
Apprch %	88.9	11.1		73.4	26.6		2.9	97.1		
Total %	15.2	1.9	17.1	46.5	16.9	63.4	0.6	19	19.5	

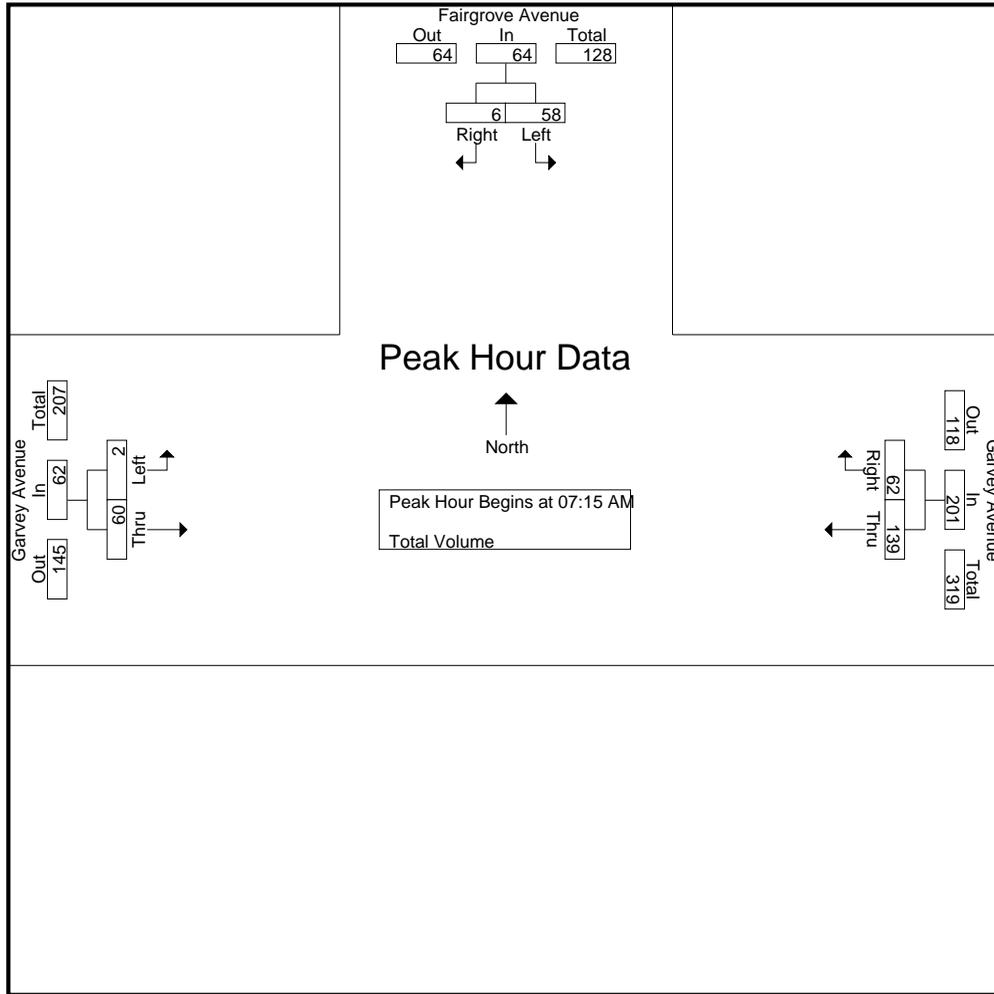
Start Time	Fairgrove Avenue Southbound			Garvey Avenue Westbound			Garvey Avenue Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
07:15 AM	19	2	21	37	4	41	0	10	10	72
07:30 AM	20	1	21	31	16	47	1	16	17	85
07:45 AM	16	1	17	44	25	69	0	16	16	102
08:00 AM	3	2	5	27	17	44	1	18	19	68
Total Volume	58	6	64	139	62	201	2	60	62	327
% App. Total	90.6	9.4		69.2	30.8		3.2	96.8		
PHF	.725	.750	.762	.790	.620	.728	.500	.833	.816	.801

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 07:15 AM

City of Baldwin Park
 N/S: Fairgrove Avenue
 E/W: Garvey Avenue
 Weather: Clear

File Name : 01_BLD_Fairgrove_Garvey AM
 Site Code : 04219654
 Start Date : 9/19/2019
 Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:15 AM		
+0 mins.	6	2	8	47	6	53	0	10	10
+15 mins.	19	2	21	37	4	41	1	16	17
+30 mins.	20	1	21	31	16	47	0	16	16
+45 mins.	16	1	17	44	25	69	1	18	19
Total Volume	61	6	67	159	51	210	2	60	62
% App. Total	91	9		75.7	24.3		3.2	96.8	
PHF	.763	.750	.798	.846	.510	.761	.500	.833	.816

City of Baldwin Park
 N/S: Fairgrove Avenue
 E/W: Garvey Avenue
 Weather: Clear

File Name : 01_BLD_Fairgrove_Garvey PM
 Site Code : 04219654
 Start Date : 9/19/2019
 Page No : 1

Groups Printed- Total Volume

Start Time	Fairgrove Avenue Southbound			Garvey Avenue Westbound			Garvey Avenue Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
04:00 PM	14	1	15	18	18	36	3	41	44	95
04:15 PM	12	1	13	13	8	21	2	20	22	56
04:30 PM	4	1	5	11	4	15	0	24	24	44
04:45 PM	9	1	10	13	17	30	1	30	31	71
Total	39	4	43	55	47	102	6	115	121	266
05:00 PM	7	0	7	14	9	23	1	32	33	63
05:15 PM	5	1	6	18	12	30	0	28	28	64
05:30 PM	11	0	11	16	13	29	3	18	21	61
05:45 PM	9	0	9	13	12	25	0	24	24	58
Total	32	1	33	61	46	107	4	102	106	246
Grand Total	71	5	76	116	93	209	10	217	227	512
Apprch %	93.4	6.6		55.5	44.5		4.4	95.6		
Total %	13.9	1	14.8	22.7	18.2	40.8	2	42.4	44.3	

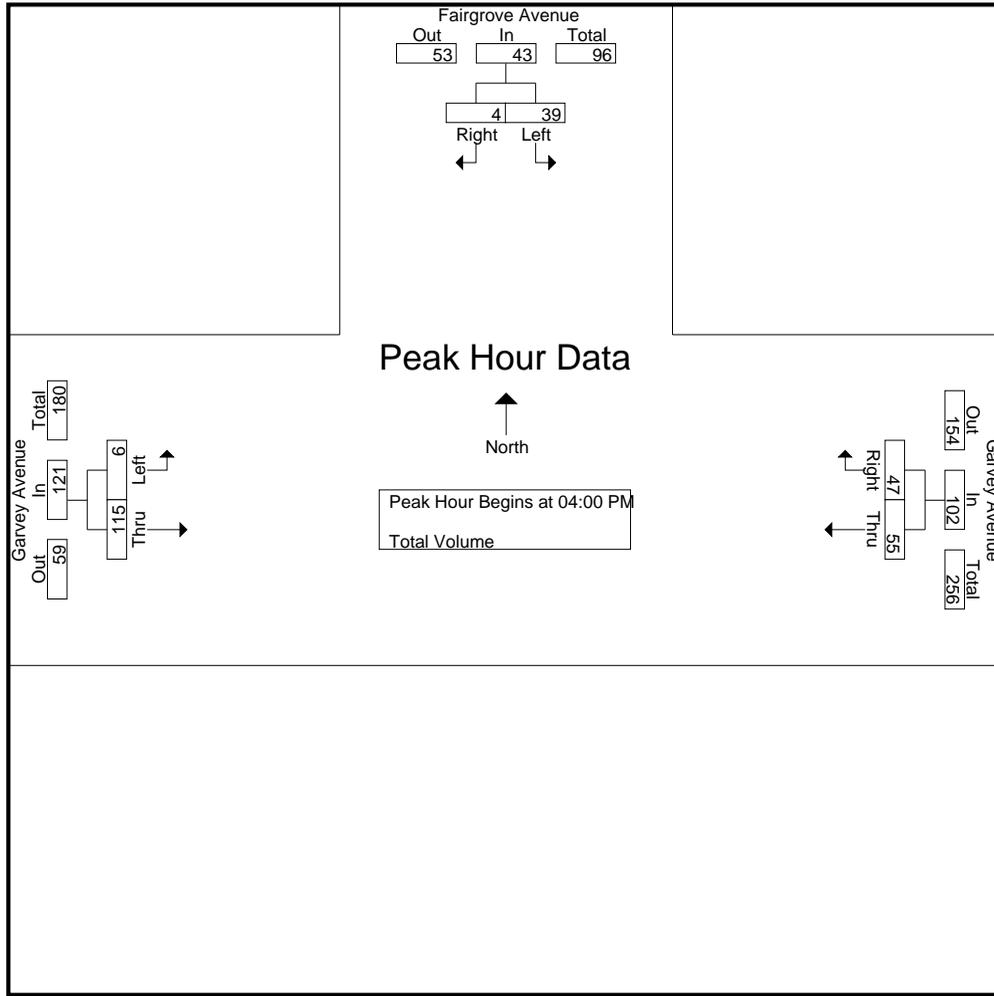
Start Time	Fairgrove Avenue Southbound			Garvey Avenue Westbound			Garvey Avenue Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
04:00 PM	14	1	15	18	18	36	3	41	44	95
04:15 PM	12	1	13	13	8	21	2	20	22	56
04:30 PM	4	1	5	11	4	15	0	24	24	44
04:45 PM	9	1	10	13	17	30	1	30	31	71
Total Volume	39	4	43	55	47	102	6	115	121	266
% App. Total	90.7	9.3		53.9	46.1		5	95		
PHF	.696	1.00	.717	.764	.653	.708	.500	.701	.688	.700

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 04:00 PM

City of Baldwin Park
 N/S: Fairgrove Avenue
 E/W: Garvey Avenue
 Weather: Clear

File Name : 01_BLD_Fairgrove_Garvey PM
 Site Code : 04219654
 Start Date : 9/19/2019
 Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:00 PM			04:45 PM			04:00 PM		
+0 mins.	14	1	15	13	17	30	3	41	44
+15 mins.	12	1	13	14	9	23	2	20	22
+30 mins.	4	1	5	18	12	30	0	24	24
+45 mins.	9	1	10	16	13	29	1	30	31
Total Volume	39	4	43	61	51	112	6	115	121
% App. Total	90.7	9.3		54.5	45.5		5	95	
PHF	.696	1.000	.717	.847	.750	.933	.500	.701	.688

City of Baldwin Park
 N/S: Frazier Street
 E/W: Garvey Avenue
 Weather: Clear

File Name : 02_BLD_Frazier_Garvey AM
 Site Code : 04219654
 Start Date : 9/19/2019
 Page No : 1

Groups Printed- Total Volume

Start Time	Frazier Street Southbound			Garvey Avenue Westbound			Frazier Street Northbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
07:00 AM	1	73	74	53	3	56	5	11	16	146
07:15 AM	2	65	67	57	1	58	14	5	19	144
07:30 AM	5	53	58	41	1	42	19	10	29	129
07:45 AM	1	83	84	31	5	36	5	13	18	138
Total	9	274	283	182	10	192	43	39	82	557
08:00 AM	3	80	83	28	6	34	8	5	13	130
08:15 AM	2	95	97	34	5	39	7	9	16	152
08:30 AM	2	103	105	32	7	39	11	15	26	170
08:45 AM	2	77	79	20	2	22	8	7	15	116
Total	9	355	364	114	20	134	34	36	70	568
Grand Total	18	629	647	296	30	326	77	75	152	1125
Apprch %	2.8	97.2		90.8	9.2		50.7	49.3		
Total %	1.6	55.9	57.5	26.3	2.7	29	6.8	6.7	13.5	

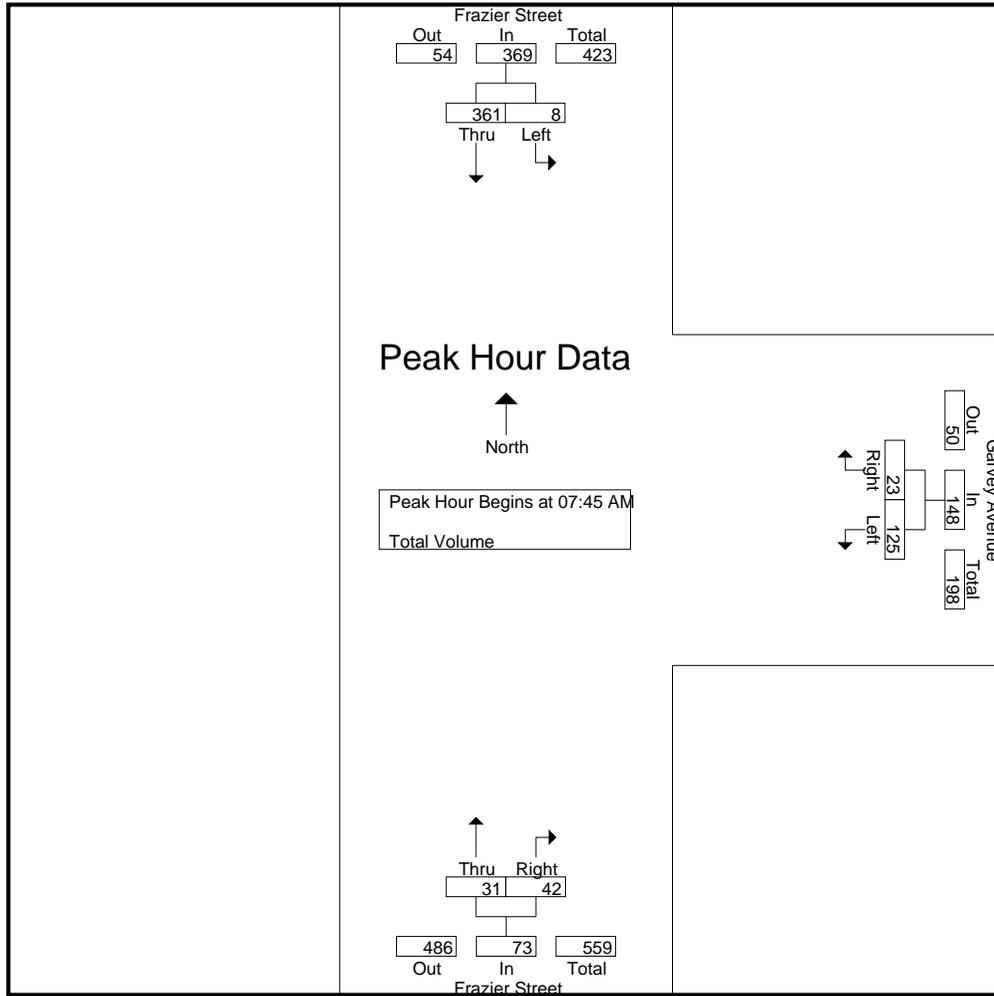
Start Time	Frazier Street Southbound			Garvey Avenue Westbound			Frazier Street Northbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
07:45 AM	1	83	84	31	5	36	5	13	18	138
08:00 AM	3	80	83	28	6	34	8	5	13	130
08:15 AM	2	95	97	34	5	39	7	9	16	152
08:30 AM	2	103	105	32	7	39	11	15	26	170
Total Volume	8	361	369	125	23	148	31	42	73	590
% App. Total	2.2	97.8		84.5	15.5		42.5	57.5		
PHF	.667	.876	.879	.919	.821	.949	.705	.700	.702	.868

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 07:45 AM

City of Baldwin Park
 N/S: Frazier Street
 E/W: Garvey Avenue
 Weather: Clear

File Name : 02_BLD_Frazier_Garvey AM
 Site Code : 04219654
 Start Date : 9/19/2019
 Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:45 AM			07:00 AM			07:00 AM		
+0 mins.	1	83	84	53	3	56	5	11	16
+15 mins.	3	80	83	57	1	58	14	5	19
+30 mins.	2	95	97	41	1	42	19	10	29
+45 mins.	2	103	105	31	5	36	5	13	18
Total Volume	8	361	369	182	10	192	43	39	82
% App. Total	2.2	97.8		94.8	5.2		52.4	47.6	
PHF	.667	.876	.879	.798	.500	.828	.566	.750	.707

City of Baldwin Park
 N/S: Frazier Street
 E/W: Garvey Avenue
 Weather: Clear

File Name : 02_BLD_Frazier_Garvey PM
 Site Code : 04219654
 Start Date : 9/19/2019
 Page No : 1

Groups Printed- Total Volume

Start Time	Frazier Street Southbound			Garvey Avenue Westbound			Frazier Street Northbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
04:00 PM	2	39	41	12	1	13	48	23	71	125
04:15 PM	1	40	41	14	0	14	36	23	59	114
04:30 PM	1	41	42	25	1	26	35	30	65	133
04:45 PM	4	31	35	13	2	15	39	29	68	118
Total	8	151	159	64	4	68	158	105	263	490
05:00 PM	1	28	29	18	2	20	32	24	56	105
05:15 PM	2	39	41	19	3	22	44	26	70	133
05:30 PM	2	39	41	23	3	26	34	26	60	127
05:45 PM	0	25	25	16	2	18	67	36	103	146
Total	5	131	136	76	10	86	177	112	289	511
Grand Total	13	282	295	140	14	154	335	217	552	1001
Apprch %	4.4	95.6		90.9	9.1		60.7	39.3		
Total %	1.3	28.2	29.5	14	1.4	15.4	33.5	21.7	55.1	

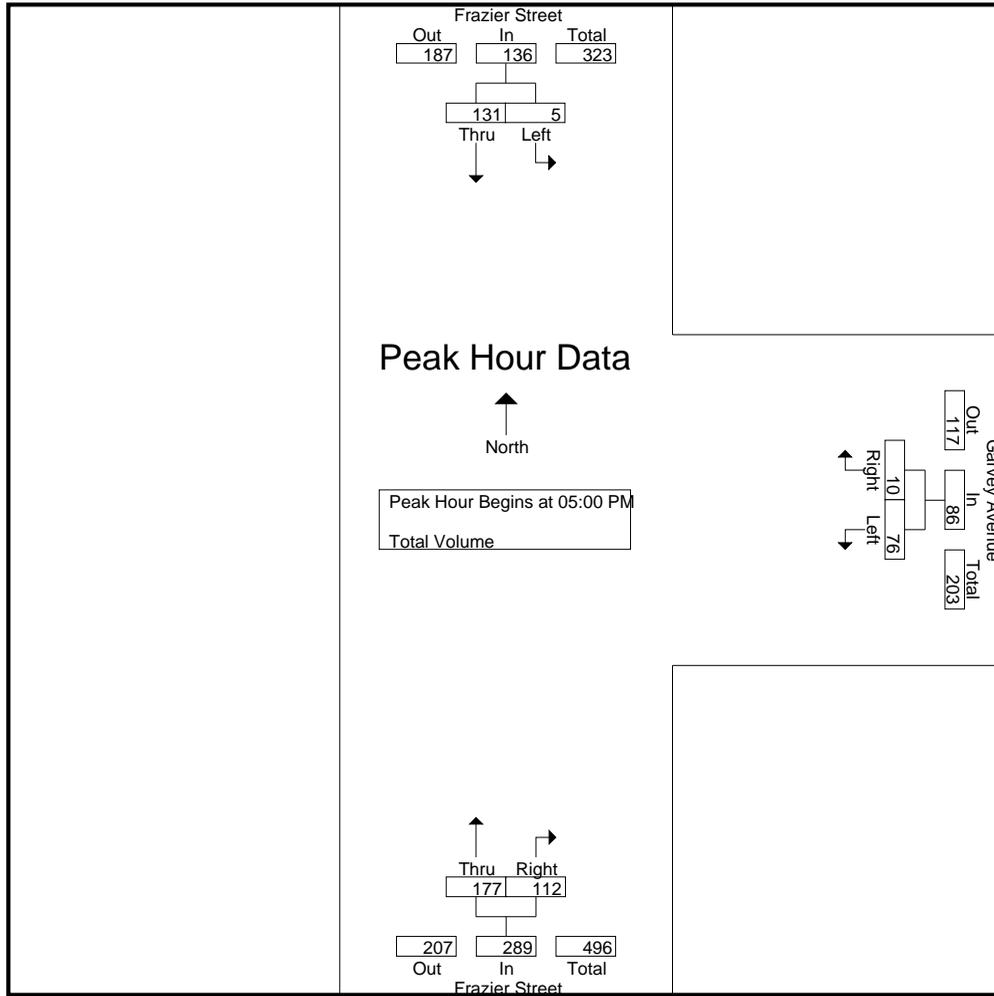
Start Time	Frazier Street Southbound			Garvey Avenue Westbound			Frazier Street Northbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
05:00 PM	1	28	29	18	2	20	32	24	56	105
05:15 PM	2	39	41	19	3	22	44	26	70	133
05:30 PM	2	39	41	23	3	26	34	26	60	127
05:45 PM	0	25	25	16	2	18	67	36	103	146
Total Volume	5	131	136	76	10	86	177	112	289	511
% App. Total	3.7	96.3		88.4	11.6		61.2	38.8		
PHF	.625	.840	.829	.826	.833	.827	.660	.778	.701	.875

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 05:00 PM

City of Baldwin Park
 N/S: Frazier Street
 E/W: Garvey Avenue
 Weather: Clear

File Name : 02_BLD_Frazier_Garvey PM
 Site Code : 04219654
 Start Date : 9/19/2019
 Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:00 PM			05:00 PM			05:00 PM		
+0 mins.	2	39	41	18	2	20	32	24	56
+15 mins.	1	40	41	19	3	22	44	26	70
+30 mins.	1	41	42	23	3	26	34	26	60
+45 mins.	4	31	35	16	2	18	67	36	103
Total Volume	8	151	159	76	10	86	177	112	289
% App. Total	5	95		88.4	11.6		61.2	38.8	
PHF	.500	.921	.946	.826	.833	.827	.660	.778	.701

APPENDIX B
Existing LOS Worksheets

13127 Garvey Avenue TIS

Vistro File: J:\...\Vistro_Baldwin_Park_v3.vistro

Scenario 1 Existing AM

Report File: J:\...\Existing_AM_v3.pdf

10/21/2019

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Fairgrove Ave and Garvey Ave	Two-way stop	HCM 6th Edition	SB Left	0.077	10.2	B
2	Frazier St and Garvey Avenue	Two-way stop	HCM 6th Edition	WB Left	0.216	13.0	B

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: Fairgrove Ave and Garvey Ave

Control Type:	Two-way stop	Delay (sec / veh):	10.2
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.077

Intersection Setup

Name	Fairgrove Avenue		Garvey Avenue		Garvey Avenue	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Fairgrove Avenue		Garvey Avenue		Garvey Avenue	
Base Volume Input [veh/h]	58	6	2	60	139	62
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	58	6	2	60	139	62
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	15	2	1	15	35	16
Total Analysis Volume [veh/h]	58	6	2	60	139	62
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.08	0.01	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	10.21	9.55	7.63	0.00	0.00	0.00
Movement LOS	B	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.27	0.27	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	6.85	6.85	0.11	0.11	0.00	0.00
d_A, Approach Delay [s/veh]	10.15		0.25		0.00	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	2.03					
Intersection LOS	B					

**Intersection Level Of Service Report
Intersection 2: Frazier St and Garvey Avenue**

Control Type:	Two-way stop	Delay (sec / veh):	13.0
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.216

Intersection Setup

Name	Frazier Street		Garvey Avenue		Garvey Avenue	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

Volumes

Name	Frazier Street		Garvey Avenue		Garvey Avenue	
Base Volume Input [veh/h]	8	361	31	42	125	23
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	8	361	31	42	125	23
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	90	8	11	31	6
Total Analysis Volume [veh/h]	8	361	31	42	125	23
Pedestrian Volume [ped/h]	0		0		0	

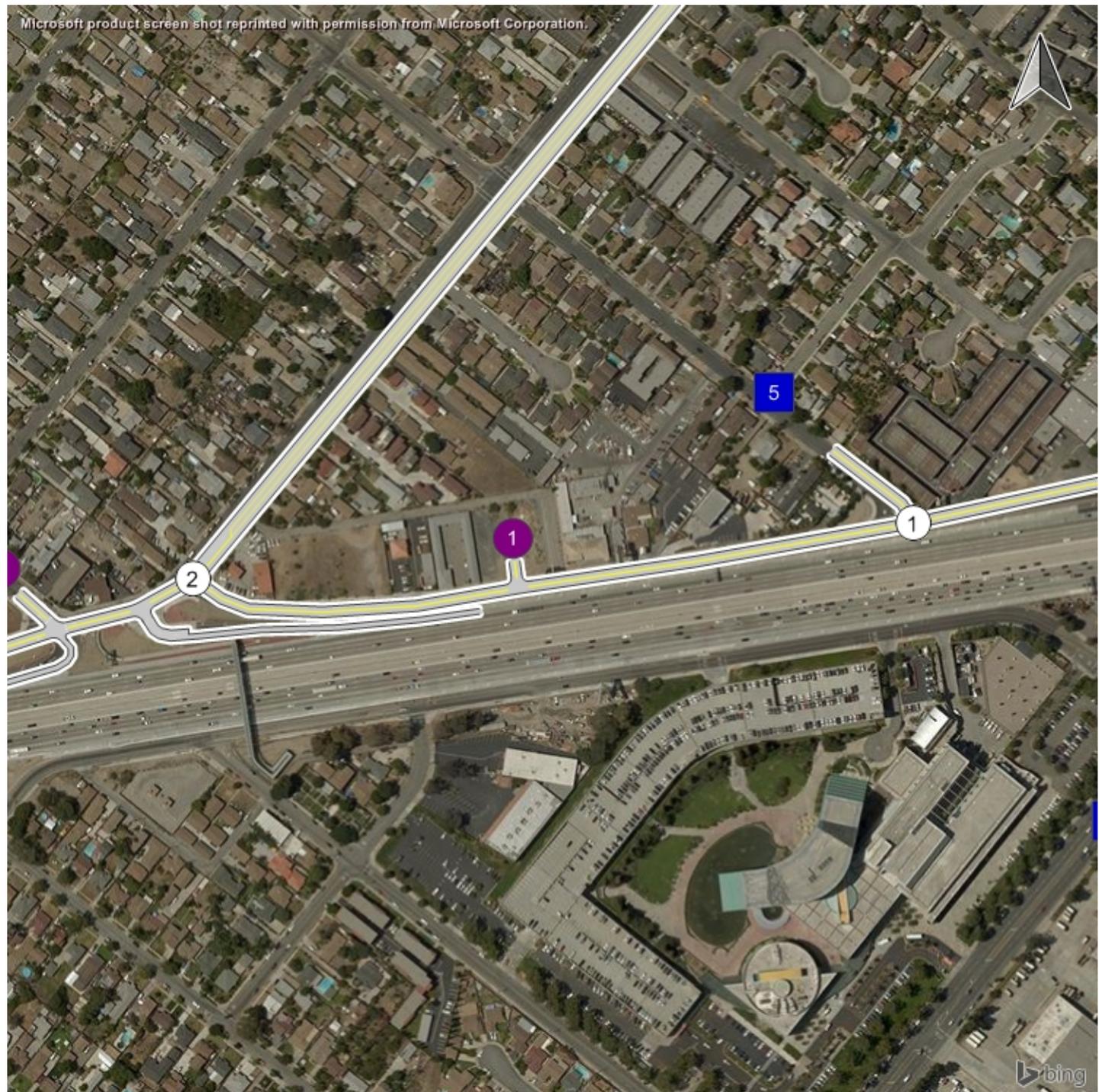
Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.00	0.00	0.22	0.02
d_M, Delay for Movement [s/veh]	7.37	0.00	0.00	0.00	13.01	10.35
Movement LOS	A	A	A	A	B	B
95th-Percentile Queue Length [veh/ln]	0.02	0.00	0.00	0.00	0.92	0.92
95th-Percentile Queue Length [ft/ln]	0.40	0.00	0.00	0.00	23.09	23.09
d_A, Approach Delay [s/veh]	0.16		0.00		12.60	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	3.26					
Intersection LOS	B					

Study Intersections



13127 Garvey Avenue TIS

Vistro File: J:\...\Vistro_Baldwin_Park_v3.vistro

Scenario 2 Existing PM

Report File: J:\...\Existing_PM_v3.pdf

10/21/2019

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Fairgrove Ave and Garvey Ave	Two-way stop	HCM 6th Edition	SB Left	0.050	9.9	A
2	Frazier St and Garvey Avenue	Two-way stop	HCM 6th Edition	WB Left	0.122	11.6	B

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

**Intersection Level Of Service Report
Intersection 1: Fairgrove Ave and Garvey Ave**

Control Type:	Two-way stop	Delay (sec / veh):	9.9
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.050

Intersection Setup

Name	Fairgrove Avenue		Garvey Avenue		Garvey Avenue	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Fairgrove Avenue		Garvey Avenue		Garvey Avenue	
Base Volume Input [veh/h]	39	4	6	115	55	47
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	39	4	6	115	55	47
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	10	1	2	29	14	12
Total Analysis Volume [veh/h]	39	4	6	115	55	47
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.05	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	9.88	8.92	7.43	0.00	0.00	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.17	0.17	0.01	0.01	0.00	0.00
95th-Percentile Queue Length [ft/ln]	4.28	4.28	0.30	0.30	0.00	0.00
d_A, Approach Delay [s/veh]	9.79		0.37		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	1.75					
Intersection LOS	A					

Intersection Level Of Service Report
Intersection 2: Frazier St and Garvey Avenue

Control Type:	Two-way stop	Delay (sec / veh):	11.6
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.122

Intersection Setup

Name	Frazier Street		Garvey Avenue		Garvey Avenue	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration	↵↵		↵		↵	
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

Volumes

Name	Frazier Street		Garvey Avenue		Garvey Avenue	
Base Volume Input [veh/h]	5	131	177	112	76	10
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	5	131	177	112	76	10
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	33	44	28	19	3
Total Analysis Volume [veh/h]	5	131	177	112	76	10
Pedestrian Volume [ped/h]	0		0		0	

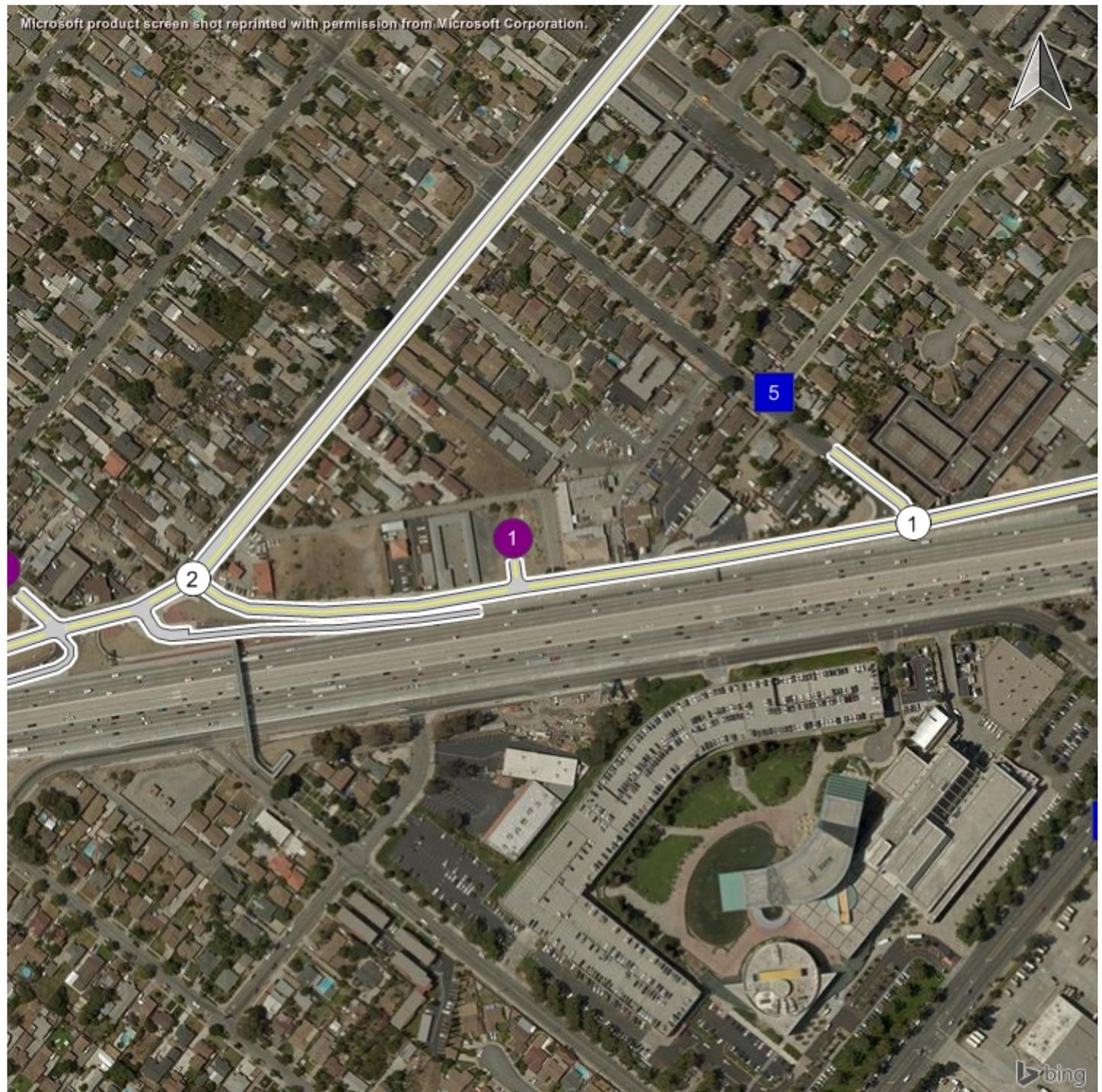
Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.12	0.01
d_M, Delay for Movement [s/veh]	7.84	0.00	0.00	0.00	11.63	10.33
Movement LOS	A	A	A	A	B	B
95th-Percentile Queue Length [veh/ln]	0.01	0.00	0.00	0.00	0.46	0.46
95th-Percentile Queue Length [ft/ln]	0.30	0.00	0.00	0.00	11.54	11.54
d_A, Approach Delay [s/veh]	0.29		0.00		11.48	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	2.01					
Intersection LOS	B					

Study Intersections



APPENDIX C
Existing with-Project LOS Worksheets

13127 Garvey Avenue TIS

Vistro File: J:\...\Vistro_Baldwin_Park_v6.vistro

Scenario 3 Existing with Project AM

Report File: J:\...\Existing_W_Project_AM.pdf

10/28/2019

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Fairgrove Ave and Garvey Ave	Two-way stop	HCM 6th Edition	SB Left	0.077	10.2	B
2	Frazier St and Garvey Avenue	Two-way stop	HCM 6th Edition	WB Left	0.222	13.1	B

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: Fairgrove Ave and Garvey Ave

Control Type:	Two-way stop	Delay (sec / veh):	10.2
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.077

Intersection Setup

Name	Fairgrove Avenue		Garvey Avenue		Garvey Avenue	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Fairgrove Avenue		Garvey Avenue		Garvey Avenue	
Base Volume Input [veh/h]	58	6	2	60	139	62
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	1	0	0	4	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	58	7	2	60	143	62
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	15	2	1	15	36	16
Total Analysis Volume [veh/h]	58	7	2	60	143	62
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.08	0.01	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	10.25	9.58	7.64	0.00	0.00	0.00
Movement LOS	B	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.28	0.28	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	6.99	6.99	0.11	0.11	0.00	0.00
d_A, Approach Delay [s/veh]	10.18		0.25		0.00	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	2.04					
Intersection LOS	B					

**Intersection Level Of Service Report
Intersection 2: Frazier St and Garvey Avenue**

Control Type:	Two-way stop	Delay (sec / veh):	13.1
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.222

Intersection Setup

Name	Frazier Street		Garvey Avenue		Garvey Avenue	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration	↵↵		↵		↵	
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

Volumes

Name	Frazier Street		Garvey Avenue		Garvey Avenue	
Base Volume Input [veh/h]	8	361	31	42	125	23
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	1	0	0	6	3	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	9	361	31	48	128	23
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	90	8	12	32	6
Total Analysis Volume [veh/h]	9	361	31	48	128	23
Pedestrian Volume [ped/h]	0		0		0	

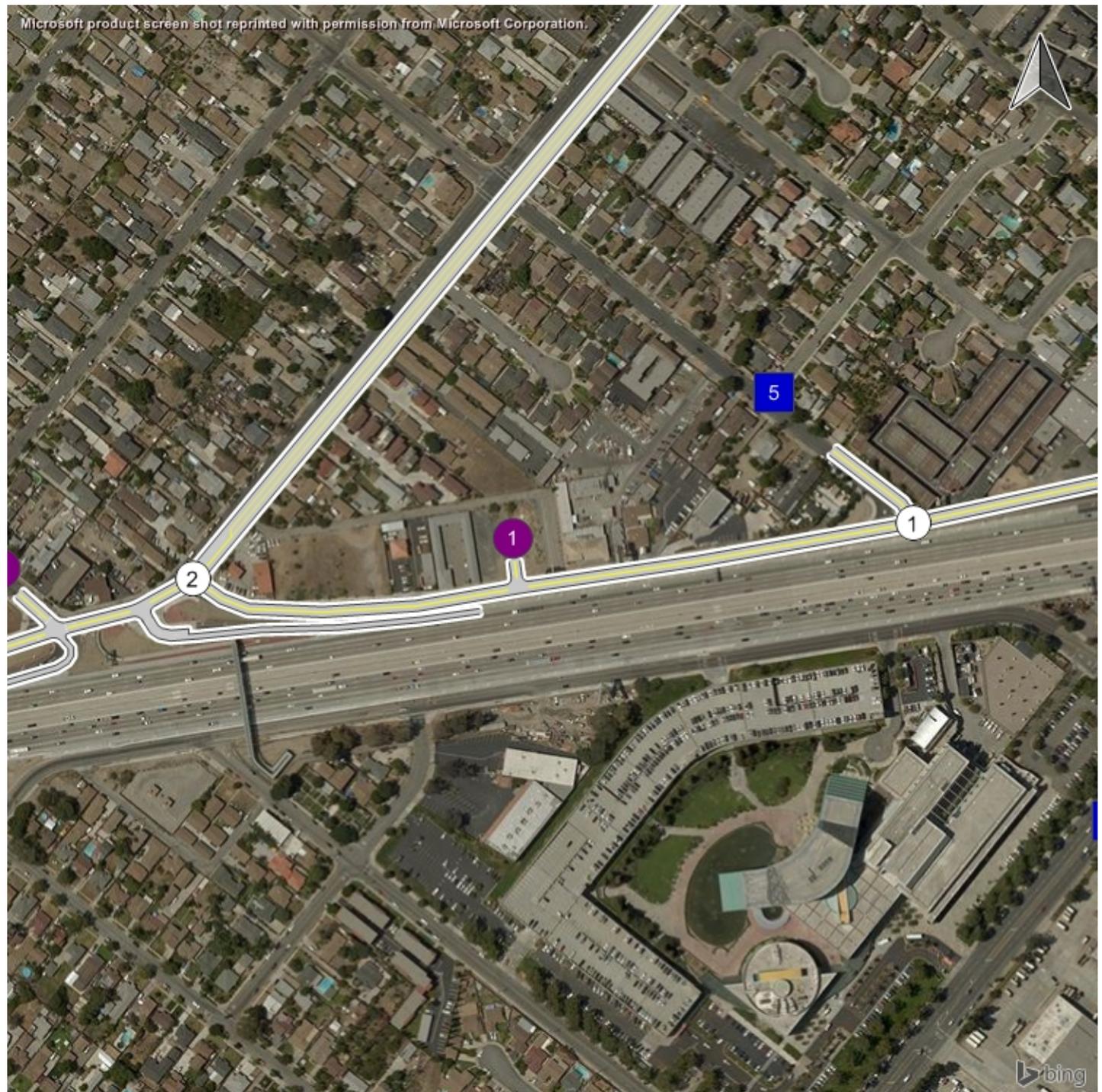
Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.00	0.00	0.22	0.02
d_M, Delay for Movement [s/veh]	7.38	0.00	0.00	0.00	13.14	10.44
Movement LOS	A	A	A	A	B	B
95th-Percentile Queue Length [veh/ln]	0.02	0.00	0.00	0.00	0.96	0.96
95th-Percentile Queue Length [ft/ln]	0.45	0.00	0.00	0.00	23.96	23.96
d_A, Approach Delay [s/veh]	0.18		0.00		12.73	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	3.31					
Intersection LOS	B					

Study Intersections



13127 Garvey Avenue TIS

Vistro File: J:\...\Vistro_Baldwin_Park_v6.vistro

Scenario 4 Existing with Project PM

Report File: J:\...\Existing_W_Project_PM.pdf

10/28/2019

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Fairgrove Ave and Garvey Ave	Two-way stop	HCM 6th Edition	SB Left	0.050	9.9	A
2	Frazier St and Garvey Avenue	Two-way stop	HCM 6th Edition	WB Left	0.132	11.8	B

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: Fairgrove Ave and Garvey Ave

Control Type:	Two-way stop	Delay (sec / veh):	9.9
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.050

Intersection Setup

Name	Fairgrove Avenue		Garvey Avenue		Garvey Avenue	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Fairgrove Avenue		Garvey Avenue		Garvey Avenue	
Base Volume Input [veh/h]	39	4	6	115	55	47
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	1	0	2	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	39	4	7	115	57	47
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	10	1	2	29	14	12
Total Analysis Volume [veh/h]	39	4	7	115	57	47
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.05	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	9.91	8.94	7.43	0.00	0.00	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.17	0.17	0.01	0.01	0.00	0.00
95th-Percentile Queue Length [ft/ln]	4.31	4.31	0.35	0.35	0.00	0.00
d_A, Approach Delay [s/veh]	9.82		0.43		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	1.76					
Intersection LOS	A					

**Intersection Level Of Service Report
Intersection 2: Frazier St and Garvey Avenue**

Control Type:	Two-way stop	Delay (sec / veh):	11.8
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.132

Intersection Setup

Name	Frazier Street		Garvey Avenue		Garvey Avenue	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration	↵↵		↵		↵	
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

Volumes

Name	Frazier Street		Garvey Avenue		Garvey Avenue	
Base Volume Input [veh/h]	5	131	177	112	76	10
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	1	0	0	3	6	1
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	6	131	177	115	82	11
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	33	44	29	21	3
Total Analysis Volume [veh/h]	6	131	177	115	82	11
Pedestrian Volume [ped/h]	0		0		0	

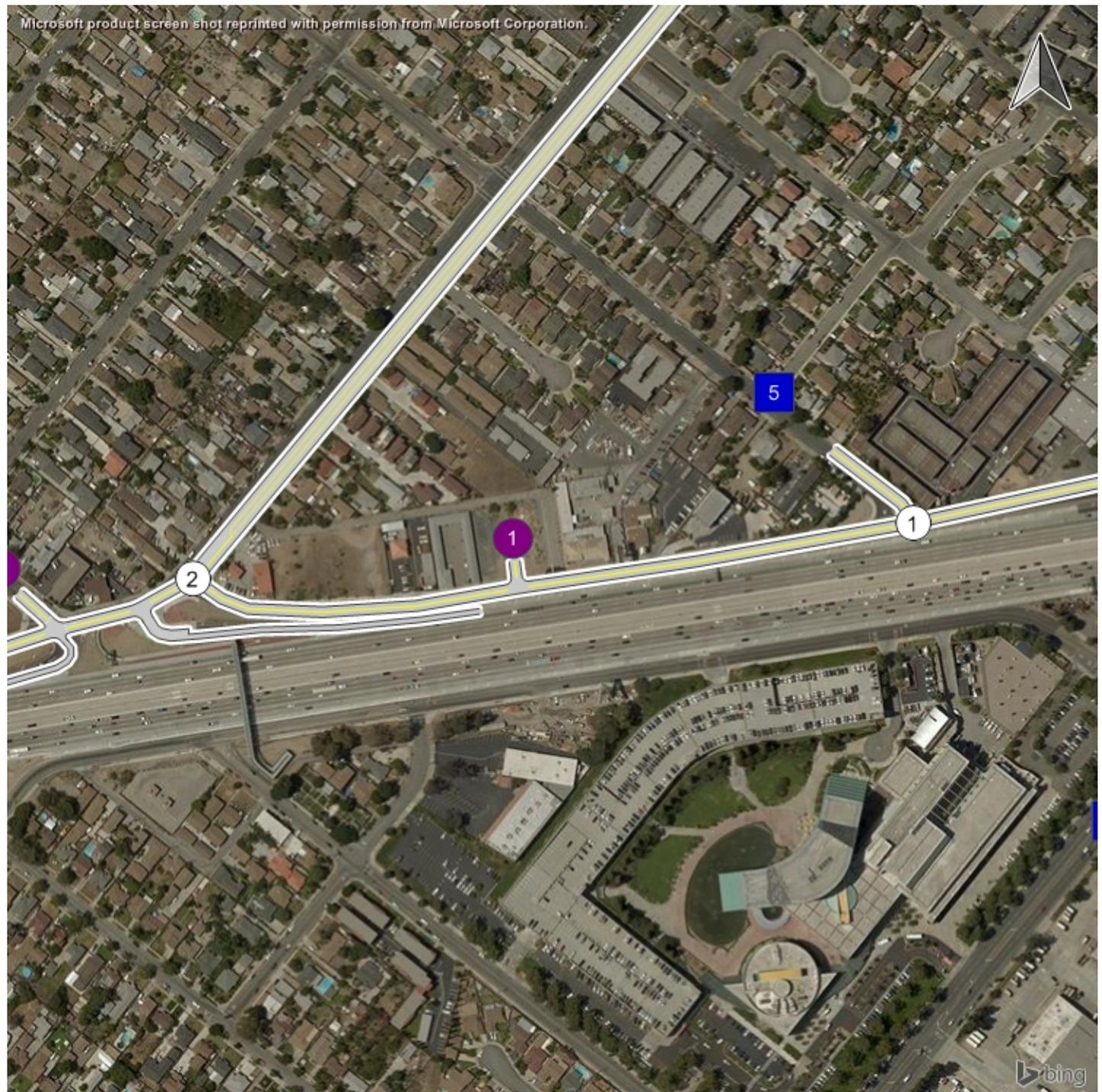
Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.13	0.01
d_M, Delay for Movement [s/veh]	7.85	0.00	0.00	0.00	11.75	10.43
Movement LOS	A	A	A	A	B	B
95th-Percentile Queue Length [veh/ln]	0.01	0.00	0.00	0.00	0.51	0.51
95th-Percentile Queue Length [ft/ln]	0.36	0.00	0.00	0.00	12.69	12.69
d_A, Approach Delay [s/veh]	0.34		0.00		11.60	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	2.16					
Intersection LOS	B					

Study Intersections



APPENDIX D
Future Without-Project LOS Worksheets

13127 Garvey Avenue TIS

Vistro File: J:\...\Vistro_Baldwin_Park_v3.vistro

Scenario 6 Future Without AM

Report File: J:\...\Future_W_Out_AM_v3.pdf

10/21/2019

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Fairgrove Ave and Garvey Ave	Two-way stop	HCM 6th Edition	SB Left	0.079	10.3	B
2	Frazier St and Garvey Avenue	Two-way stop	HCM 6th Edition	WB Left	0.228	13.5	B

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: Fairgrove Ave and Garvey Ave

Control Type:	Two-way stop	Delay (sec / veh):	10.3
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.079

Intersection Setup

Name	Fairgrove Avenue		Garvey Avenue		Garvey Avenue	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Fairgrove Avenue		Garvey Avenue		Garvey Avenue	
Base Volume Input [veh/h]	58	6	2	60	139	62
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0100	1.0100	1.0100	1.0100	1.0100	1.0100
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	3	1	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	59	6	2	64	141	63
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	15	2	1	16	35	16
Total Analysis Volume [veh/h]	59	6	2	64	141	63
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.08	0.01	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	10.27	9.58	7.64	0.00	0.00	0.00
Movement LOS	B	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.28	0.28	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	7.03	7.03	0.11	0.11	0.00	0.00
d_A, Approach Delay [s/veh]	10.20		0.23		0.00	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	2.03					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 2: Frazier St and Garvey Avenue

Control Type:	Two-way stop	Delay (sec / veh):	13.5
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.228

Intersection Setup

Name	Frazier Street		Garvey Avenue		Garvey Avenue	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration	↵↵		↵		↵	
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

Volumes

Name	Frazier Street		Garvey Avenue		Garvey Avenue	
Base Volume Input [veh/h]	8	361	31	42	125	23
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0100	1.0100	1.0100	1.0100	1.0100	1.0100
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	11	15	3	1	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	8	376	46	45	127	23
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	94	12	11	32	6
Total Analysis Volume [veh/h]	8	376	46	45	127	23
Pedestrian Volume [ped/h]	0		0		0	

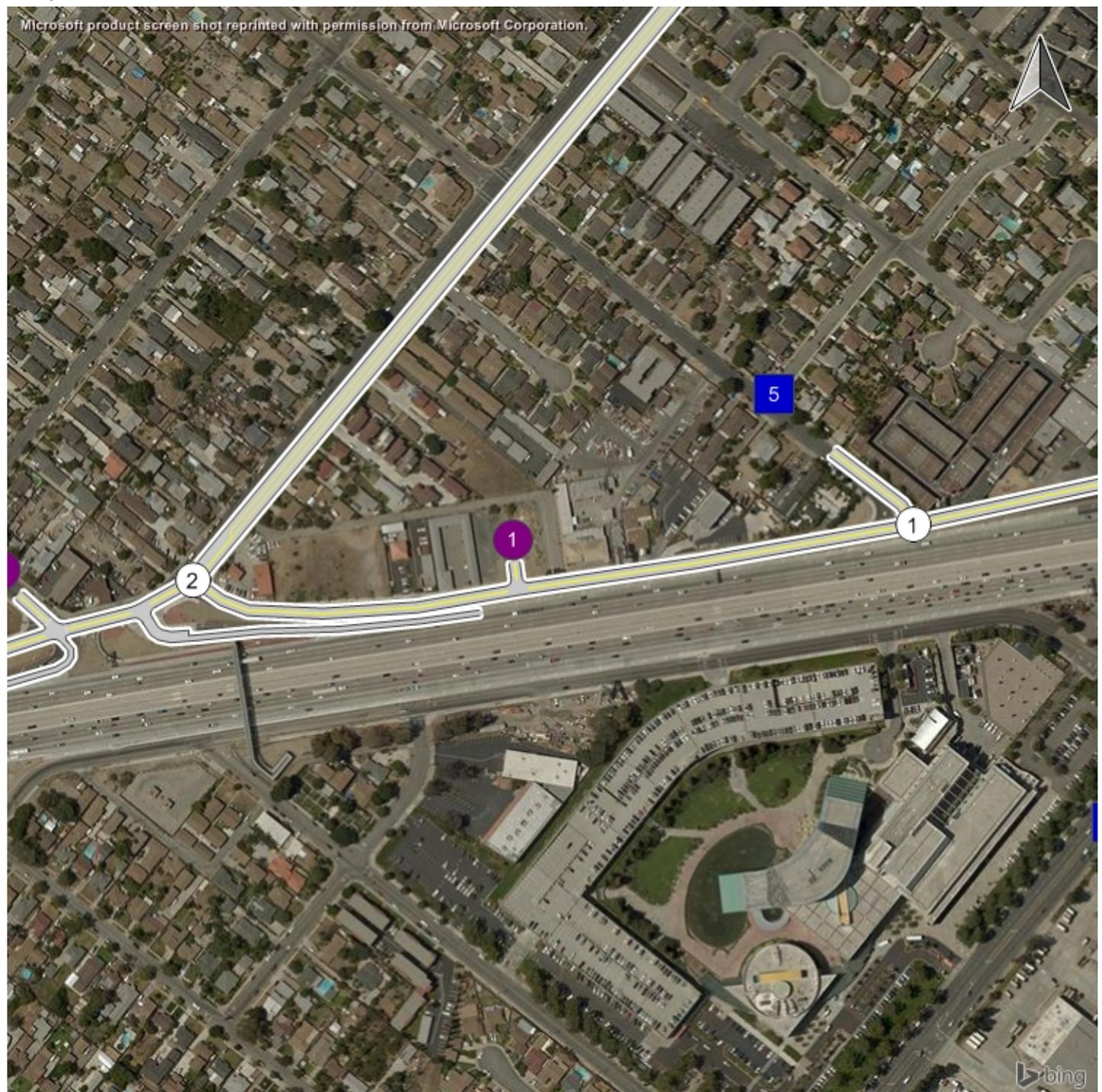
Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.00	0.00	0.23	0.02
d_M, Delay for Movement [s/veh]	7.41	0.00	0.00	0.00	13.49	10.64
Movement LOS	A	A	A	A	B	B
95th-Percentile Queue Length [veh/ln]	0.02	0.00	0.00	0.00	0.99	0.99
95th-Percentile Queue Length [ft/ln]	0.40	0.00	0.00	0.00	24.76	24.76
d_A, Approach Delay [s/veh]	0.15		0.00		13.05	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	3.23					
Intersection LOS	B					

Study Intersections



13127 Garvey Avenue TIS

Vistro File: J:\...\Vistro_Baldwin_Park_v3.vistro

Scenario 7 Future Without PM

Report File: J:\...\Future_W_Out_PM_v3.pdf

10/21/2019

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Fairgrove Ave and Garvey Ave	Two-way stop	HCM 6th Edition	SB Left	0.050	9.9	A
2	Frazier St and Garvey Avenue	Two-way stop	HCM 6th Edition	WB Left	0.134	12.0	B

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: Fairgrove Ave and Garvey Ave

Control Type:	Two-way stop	Delay (sec / veh):	9.9
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.050

Intersection Setup

Name	Fairgrove Avenue		Garvey Avenue		Garvey Avenue	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Fairgrove Avenue		Garvey Avenue		Garvey Avenue	
Base Volume Input [veh/h]	39	4	6	115	55	47
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0100	1.0100	1.0100	1.0100	1.0100	1.0100
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	2	3	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	39	4	6	118	59	47
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	10	1	2	30	15	12
Total Analysis Volume [veh/h]	39	4	6	118	59	47
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.05	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	9.92	8.95	7.43	0.00	0.00	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.17	0.17	0.01	0.01	0.00	0.00
95th-Percentile Queue Length [ft/ln]	4.32	4.32	0.30	0.30	0.00	0.00
d_A, Approach Delay [s/veh]	9.83		0.36		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	1.71					
Intersection LOS	A					

Intersection Level Of Service Report
Intersection 2: Frazier St and Garvey Avenue

Control Type:	Two-way stop	Delay (sec / veh):	12.0
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.134

Intersection Setup

Name	Frazier Street		Garvey Avenue		Garvey Avenue	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

Volumes

Name	Frazier Street		Garvey Avenue		Garvey Avenue	
Base Volume Input [veh/h]	5	131	177	112	76	10
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0100	1.0100	1.0100	1.0100	1.0100	1.0100
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	14	14	2	3	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	5	146	193	115	80	10
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	37	48	29	20	3
Total Analysis Volume [veh/h]	5	146	193	115	80	10
Pedestrian Volume [ped/h]	0		0		0	

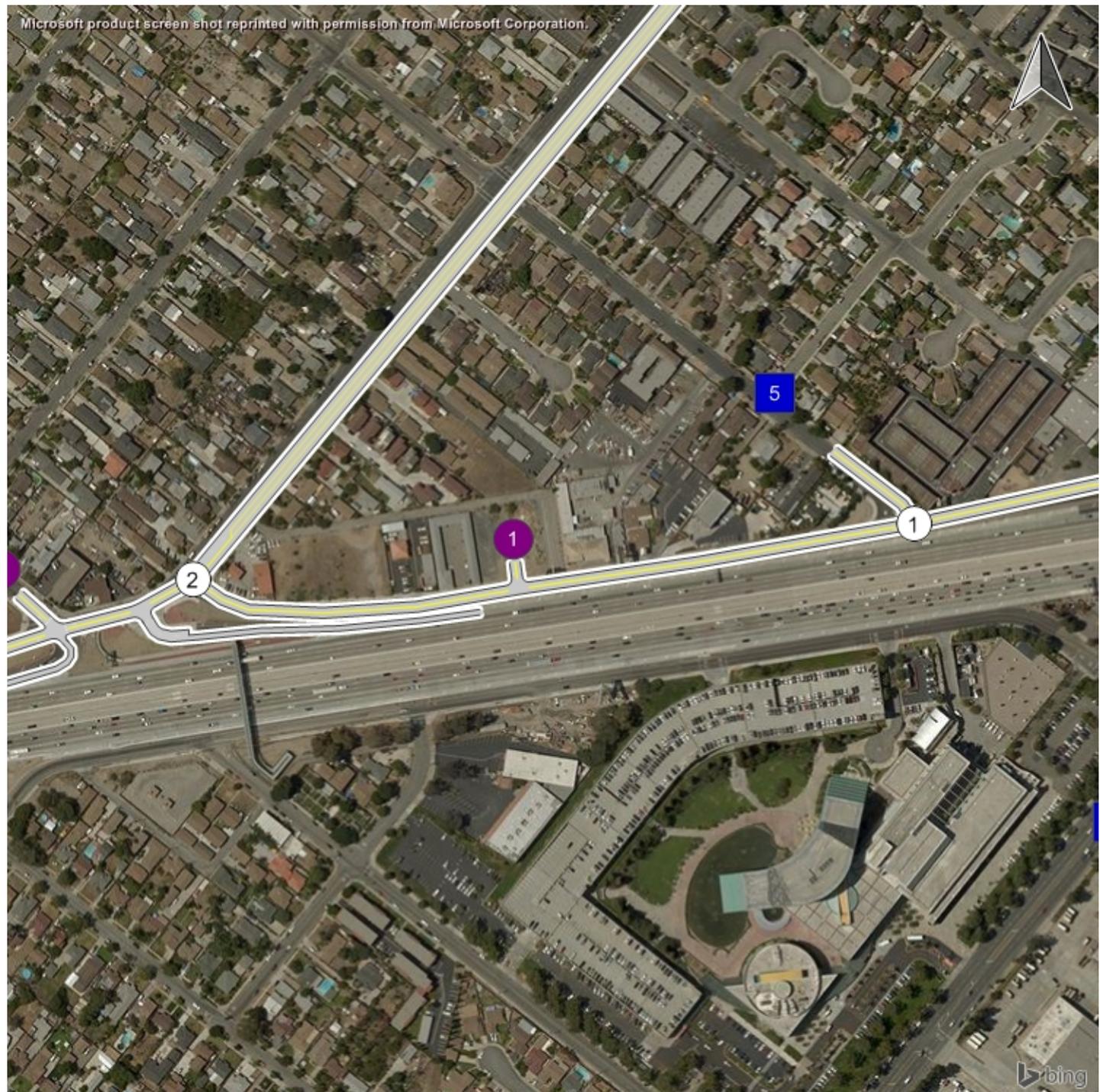
Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.13	0.01
d_M, Delay for Movement [s/veh]	7.89	0.00	0.00	0.00	12.02	10.57
Movement LOS	A	A	A	A	B	B
95th-Percentile Queue Length [veh/ln]	0.01	0.00	0.00	0.00	0.51	0.51
95th-Percentile Queue Length [ft/ln]	0.30	0.00	0.00	0.00	12.77	12.77
d_A, Approach Delay [s/veh]	0.26		0.00		11.86	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	2.02					
Intersection LOS	B					

Study Intersections



APPENDIX E
Future With-Project LOS Worksheets

13127 Garvey Avenue TIS

Vistro File: J:\...\Vistro_Baldwin_Park_v6.vistro

Scenario 8 Future with Project AM

Report File: J:\...\Future_W_Project_AM.pdf

10/28/2019

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Fairgrove Ave and Garvey Ave	Two-way stop	HCM 6th Edition	SB Left	0.079	10.3	B
2	Frazier St and Garvey Avenue	Two-way stop	HCM 6th Edition	WB Left	0.236	13.6	B

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: Fairgrove Ave and Garvey Ave

Control Type:	Two-way stop	Delay (sec / veh):	10.3
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.079

Intersection Setup

Name	Fairgrove Avenue		Garvey Avenue		Garvey Avenue	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Fairgrove Avenue		Garvey Avenue		Garvey Avenue	
Base Volume Input [veh/h]	58	6	2	60	139	62
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0100	1.0100	1.0100	1.0100	1.0100	1.0100
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	1	0	3	5	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	59	7	2	64	145	63
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	15	2	1	16	36	16
Total Analysis Volume [veh/h]	59	7	2	64	145	63
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.08	0.01	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	10.30	9.61	7.65	0.00	0.00	0.00
Movement LOS	B	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.29	0.29	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	7.17	7.17	0.11	0.11	0.00	0.00
d_A, Approach Delay [s/veh]	10.23		0.23		0.00	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	2.03					
Intersection LOS	B					

**Intersection Level Of Service Report
Intersection 2: Frazier St and Garvey Avenue**

Control Type:	Two-way stop	Delay (sec / veh):	13.6
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.236

Intersection Setup

Name	Frazier Street		Garvey Avenue		Garvey Avenue	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration	↵↵		↵		↵	
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

Volumes

Name	Frazier Street		Garvey Avenue		Garvey Avenue	
Base Volume Input [veh/h]	8	361	31	42	125	23
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0100	1.0100	1.0100	1.0100	1.0100	1.0100
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	1	11	15	9	4	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	9	376	46	51	130	23
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	94	12	13	33	6
Total Analysis Volume [veh/h]	9	376	46	51	130	23
Pedestrian Volume [ped/h]	0		0		0	

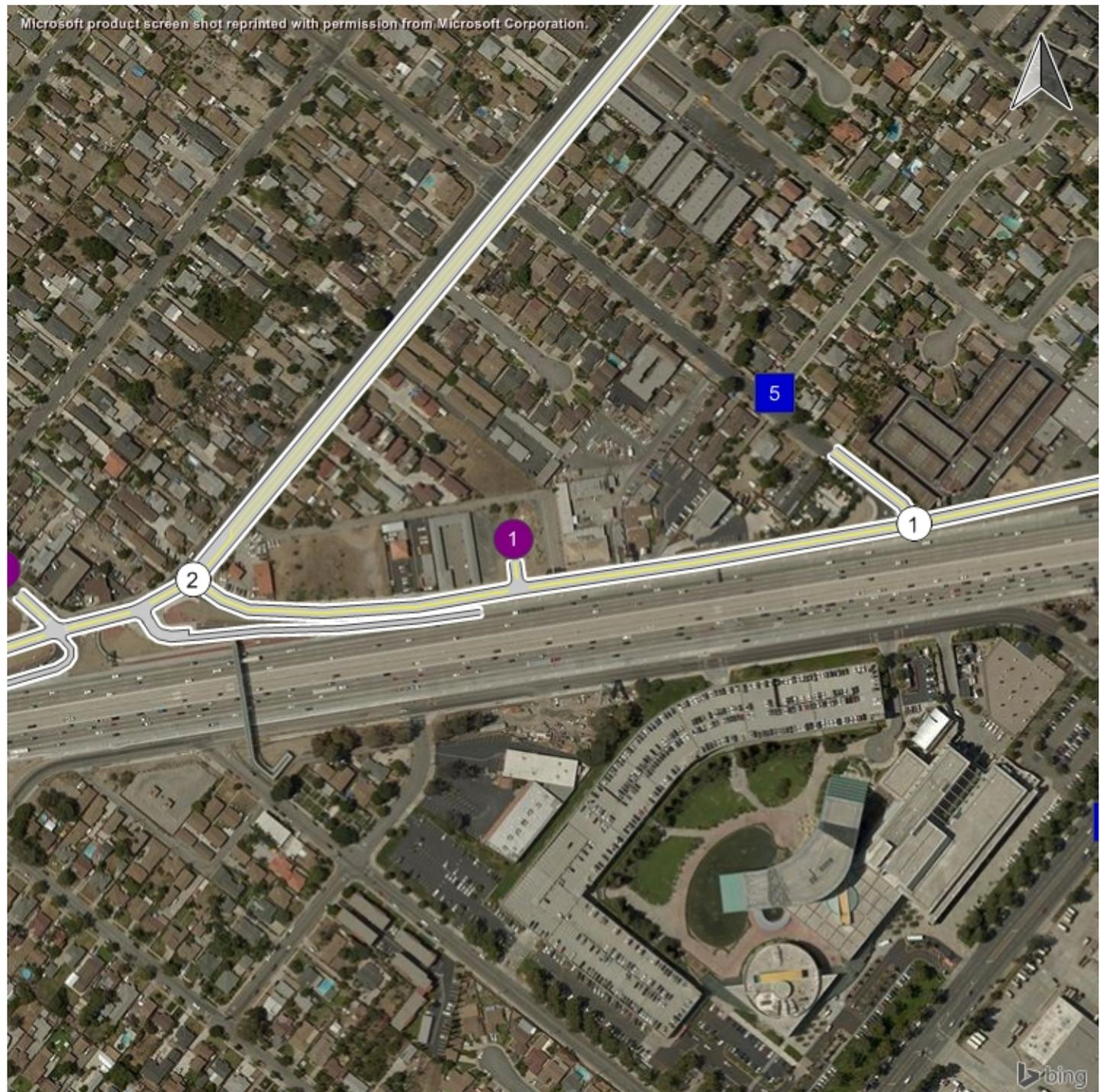
Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.00	0.00	0.24	0.02
d_M, Delay for Movement [s/veh]	7.42	0.00	0.00	0.00	13.63	10.74
Movement LOS	A	A	A	A	B	B
95th-Percentile Queue Length [veh/ln]	0.02	0.00	0.00	0.00	1.03	1.03
95th-Percentile Queue Length [ft/ln]	0.45	0.00	0.00	0.00	25.70	25.70
d_A, Approach Delay [s/veh]	0.17		0.00		13.20	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	3.29					
Intersection LOS	B					

Study Intersections



13127 Garvey Avenue TIS

Vistro File: J:\...\Vistro_Baldwin_Park_v6.vistro

Scenario 9 Future with Project PM

Report File: J:\...\Future_W_Project_PM.pdf

10/28/2019

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Fairgrove Ave and Garvey Ave	Two-way stop	HCM 6th Edition	SB Left	0.051	10.0	A
2	Frazier St and Garvey Avenue	Two-way stop	HCM 6th Edition	WB Left	0.145	12.2	B

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: Fairgrove Ave and Garvey Ave

Control Type:	Two-way stop	Delay (sec / veh):	10.0
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.051

Intersection Setup

Name	Fairgrove Avenue		Garvey Avenue		Garvey Avenue	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Fairgrove Avenue		Garvey Avenue		Garvey Avenue	
Base Volume Input [veh/h]	39	4	6	115	55	47
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0100	1.0100	1.0100	1.0100	1.0100	1.0100
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	1	2	5	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	39	4	7	118	61	47
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	10	1	2	30	15	12
Total Analysis Volume [veh/h]	39	4	7	118	61	47
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.05	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	9.96	8.96	7.44	0.00	0.00	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.17	0.17	0.01	0.01	0.00	0.00
95th-Percentile Queue Length [ft/ln]	4.35	4.35	0.36	0.36	0.00	0.00
d_A, Approach Delay [s/veh]	9.86		0.42		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	1.73					
Intersection LOS	A					

Intersection Level Of Service Report
Intersection 2: Frazier St and Garvey Avenue

Control Type:	Two-way stop	Delay (sec / veh):	12.2
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.145

Intersection Setup

Name	Frazier Street		Garvey Avenue		Garvey Avenue	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration	↵↵		↵		↵	
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

Volumes

Name	Frazier Street		Garvey Avenue		Garvey Avenue	
Base Volume Input [veh/h]	5	131	177	112	76	10
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0100	1.0100	1.0100	1.0100	1.0100	1.0100
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	1	14	14	5	9	1
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	6	146	193	118	86	11
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	37	48	30	22	3
Total Analysis Volume [veh/h]	6	146	193	118	86	11
Pedestrian Volume [ped/h]	0		0		0	

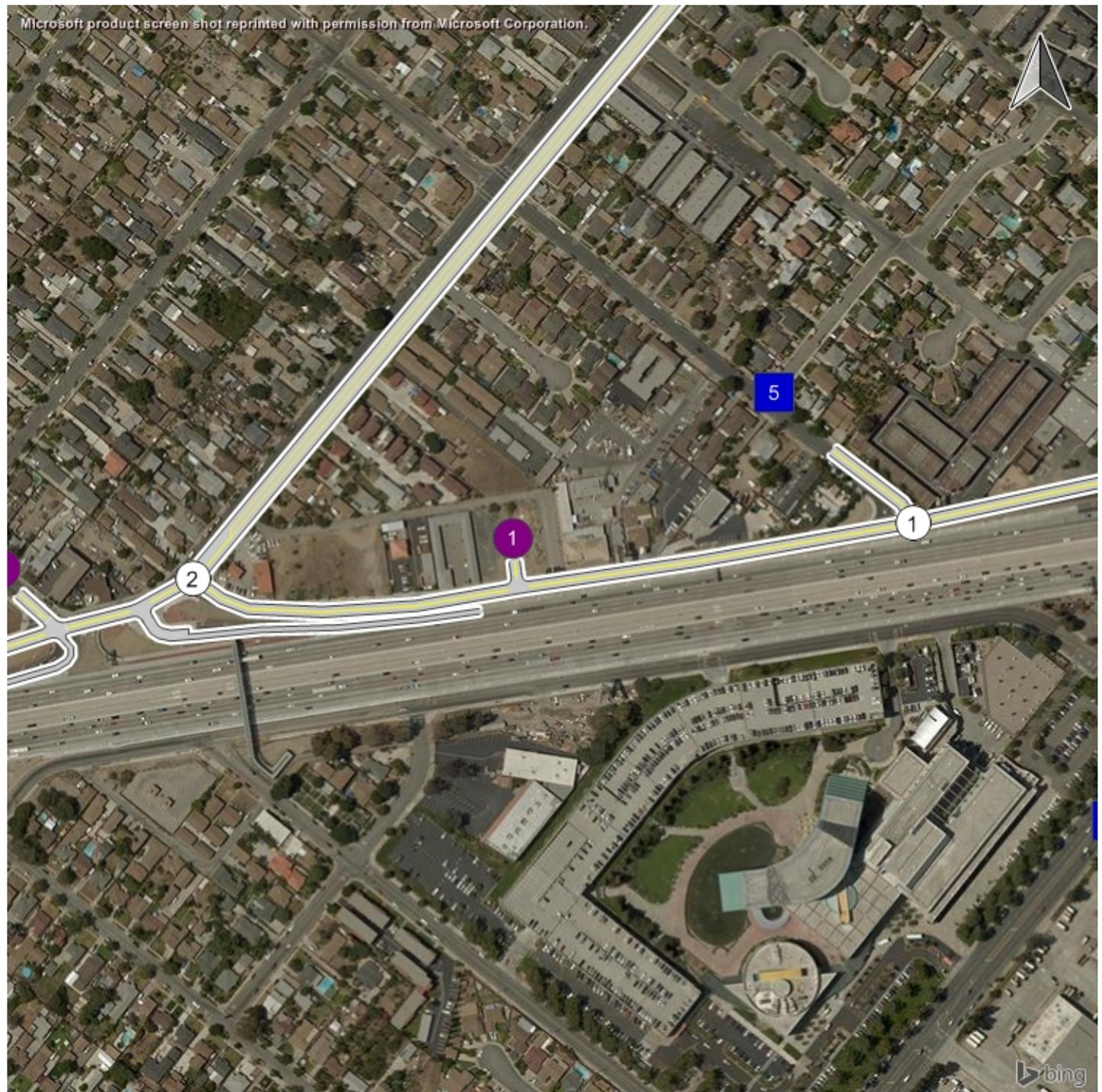
Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.14	0.01
d_M, Delay for Movement [s/veh]	7.90	0.00	0.00	0.00	12.16	10.68
Movement LOS	A	A	A	A	B	B
95th-Percentile Queue Length [veh/ln]	0.01	0.00	0.00	0.00	0.56	0.56
95th-Percentile Queue Length [ft/ln]	0.36	0.00	0.00	0.00	14.01	14.01
d_A, Approach Delay [s/veh]	0.31		0.00		11.99	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	2.16					
Intersection LOS	B					

Study Intersections



APPENDIX F
ADT Data

Counts Unlimited, Inc.

City of Baldwin Park
 Garvey Avenue
 B/ Frazier Street - Fairgrove Avenue
 24 Hour Directional Volume Count

PO Box 1178
 Corona, CA 92878
 Phone: (951) 268-6268
 email: counts@countsunlimited.com

BPK001
 Site Code: 041-19654

Start Time	19-Sep-19 Thu	Eastbound		Hour Totals		Westbound		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		5	20			3	17				
12:15		5	15			2	19				
12:30		4	22			2	16				
12:45		2	13	16	70	4	18	11	70	27	140
01:00		5	15			3	20				
01:15		2	15			1	19				
01:30		0	20			0	27				
01:45		1	19	8	69	4	17	8	83	16	152
02:00		1	23			3	24				
02:15		0	33			0	21				
02:30		2	28			1	19				
02:45		2	20	5	104	0	18	4	82	9	186
03:00		1	27			4	26				
03:15		4	20			4	28				
03:30		6	33			0	17				
03:45		1	32	12	112	1	23	9	94	21	206
04:00		2	44			3	19				
04:15		6	22			2	14				
04:30		2	24			0	12				
04:45		5	31	15	121	2	14	7	59	22	180
05:00		2	33			8	14				
05:15		3	28			9	19				
05:30		3	21			8	16				
05:45		4	24	12	106	12	13	37	62	49	168
06:00		4	31			20	21				
06:15		14	26			35	17				
06:30		9	29			29	18				
06:45		9	22	36	108	28	8	112	64	148	172
07:00		5	26			49	18				
07:15		10	17			39	14				
07:30		17	23			32	11				
07:45		16	27	48	93	45	15	165	58	213	151
08:00		19	21			29	15				
08:15		10	23			29	20				
08:30		15	17			8	12				
08:45		11	15	55	76	14	21	80	68	135	144
09:00		9	11			13	11				
09:15		15	14			15	7				
09:30		12	10			12	14				
09:45		16	11	52	46	14	12	54	44	106	90
10:00		14	7			15	8				
10:15		7	10			21	9				
10:30		14	8			8	5				
10:45		25	9	60	34	12	11	56	33	116	67
11:00		13	5			14	7				
11:15		19	4			13	5				
11:30		22	8			12	2				
11:45		12	4	66	21	26	4	65	18	131	39
Total		385	960	385	960	608	735	608	735	993	1695
Combined Total		1345		1345		1343		1343		2688	
AM Peak	-	10:45	-	-	-	07:00	-	-	-	-	-
Vol.	-	79	-	-	-	165	-	-	-	-	-
P.H.F.		0.790				0.842					
PM Peak	-	-	03:30	-	-	-	03:00	-	-	-	-
Vol.	-	-	131	-	-	-	94	-	-	-	-
P.H.F.			0.744				0.839				
Percentage		28.6%	71.4%			45.3%	54.7%				
ADT/AADT		ADT 2,688		AADT 2,688							

APPENDIX G
Speed Survey Data

City of Baldwin Park
Radar Speed Survey

Speed	EB	WB	Vehicles Surveyed		TOT. VEH.
			Eastbound	Westbound	
55	0	0			0
54	0	0			0
53	0	0			0
52	0	0			0
51	0	0			0
50	0	0			0
49	0	4			4
48	0	1			1
47	2	2			4
46	1	2			3
45	5	3			8
44	2	4			6
43	3	7			10
42	6	8			14
41	2	6			8
40	3	4			7
39	6	6			12
38	3	8			11
37	12	7			19
36	14	10			24
35	12	8			20
34	8	2			10
33	7	4			11
32	4	4			8
31	1	1			2
30	1	1			2
29	4	3			7
28	1	0			1
27	1	2			3
26	1	0			1
25	0	0			0
24	0	0			0
23	0	0			0
22	0	0			0
21	0	0			0
20	0	0			0
19	0	0			0
18	0	0			0
17	0	0			0
16	0	0			0
15	0	0			0
14	0	0			0
13	0	0			0
12	0	0			0
11	0	0			0
10	0	0			0
9	0	0			0
8	0	0			0
7	0	0			0
6	0	0			0
5	0	0			0
Total	100	100	GRAND TOTALS		200

Location: Garvey Avenue

Between: Frazier Street - Fairgrove Avenue

Weather: Clear

Date: 9/19/19

Time From: 9:00

Time To: 10:55

Existing Speed Limit: N / P MPH

	Eastbound Statistics	Westbound Statistics	Combined Statistics
% Over Pace:	13%	12%	18%
% In Pace:	73%	68%	68%
% Under Pace:	14%	20%	14%
Average Speed:	37 MPH	38 MPH	38 MPH
Pace Speed:	33 - 42 MPH	35 - 44 MPH	33 - 42 MPH
15th Percentile / Critical Speed:	33 MPH	33 MPH	33 MPH
50th Percentile / Critical Speed:	36 MPH	38 MPH	37 MPH
85th Percentile / Critical Speed:	42 MPH	44 MPH	43 MPH


 Radar Survey Conducted By:
Counts Unlimited, Inc.
 PO Box 1178
 Corona, CA 92880
 T 951-268-6268 F 951-268-6267

APPENDIX H
Pedestrian and Bicycle Counts

Location: Baldwin Park
 N/S: Fairgrove Avenue
 E/W: Garvey Avenue



Date: 9/19/2019
 Day: Thursday

PEDESTRIANS

		North Leg Fairgrove Avenue	East Leg Garvey Avenue	South Leg Fairgrove Avenue	West Leg Garvey Avenue	
		Pedestrians	Pedestrians	Pedestrians	Pedestrians	
7:00 AM		0	0	0	0	0
7:15 AM		0	0	0	0	0
7:30 AM		0	0	0	0	0
7:45 AM		0	0	0	0	0
8:00 AM		0	0	0	0	0
8:15 AM		2	0	0	0	2
8:30 AM		1	0	0	0	1
8:45 AM		0	0	0	0	0
TOTAL VOLUMES:		3	0	0	0	3

		North Leg Fairgrove Avenue	East Leg Garvey Avenue	South Leg Fairgrove Avenue	West Leg Garvey Avenue	
		Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 PM		1	0	0	0	1
4:15 PM		0	0	0	0	0
4:30 PM		0	0	0	0	0
4:45 PM		2	0	0	0	2
5:00 PM		1	0	0	0	1
5:15 PM		0	0	0	0	0
5:30 PM		0	0	0	0	0
5:45 PM		0	0	0	0	0
TOTAL VOLUMES:		4	0	0	0	4

Location: Baldwin Park
 N/S: Fairgrove Avenue
 E/W: Garvey Avenue



Date: 9/19/2019
 Day: Thursday

BICYCLES

	Southbound Fairgrove Avenue			Westbound Garvey Avenue			Northbound Fairgrove Avenue			Eastbound Garvey Avenue			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	1	0	0	0	0	0	0	0	0	0	0	0	1
7:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	1
7:45 AM	0	0	0	0	2	0	0	0	0	0	0	0	2
8:00 AM	0	0	0	0	1	0	0	0	0	0	0	0	1
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	1	0	0	0	0	0	0	0	1
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	1	0	0	0	4	0	0	0	0	0	1	0	6

	Southbound Fairgrove Avenue			Westbound Garvey Avenue			Northbound Fairgrove Avenue			Eastbound Garvey Avenue			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	1
4:45 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
5:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
TOTAL VOLUMES:	0	0	0	0	2	0	0	0	0	1	1	0	4