Addendum to the Pomona Hyatt Place Hotel Project EIR



Prepared for: City of Pomona 505 S. Garey Avenue Pomona, CA 91766

Prepared by:
Applied Planning, Inc.
11762 De Palma Road, 1-C 310
Corona, CA 92883

May 2018

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(SCH No. 2016011079)

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1.0 Introduction

1.0 INTRODUCTION

1.1 OVERVIEW

This Addendum to the Certified EIR for the Pomona Hyatt Place Hotel Project (Certified EIR) substantiates that proposed Modification to the Pomona Hyatt Place Hotel Project described herein would not result in any new significant impacts not considered and addressed in the Certified EIR; nor would there be any substantial increase in the severity of any previously-identified environmental impact considered in the Certified EIR.

1.1.1 Original Project

The Pomona Hyatt Place Hotel Project (Original Project) was approved by the City of Pomona (City) in August 2016. The Original Project comprised the following primary elements:

- A 6-story, 200-room Hyatt Place + Hyatt House Hotel with conference facilities and supporting amenities totaling approximately 159,000 square feet; and
- A free-standing, 3-story Office Building totaling approximately 75,000 square feet.

1.1.2 Modified Project

The proposed Modification to the Original Project (Modified Project) would increase the Hyatt Place + Hyatt House Hotel (Hotel) use by 15 rooms (to a total of 215 rooms) yielding a total Hotel building area of approximately 161,063 square feet; and would replace the currently entitled 3-story, 75,000-square-foot Office Building with a multi-story, mixed-use building (Mixed-Use Building) comprising a Health Club (preliminarily identified as a "LA Fitness") totaling approximately 46,273 square feet; and 95 residential apartment units. The Modified Project would also implement necessary supporting site improvements including, but not limited to: parking, landscaping, lighting, and signage.

No other aspects of the Original Project would be substantively affected by the Modified Project.

1.2 ADDENDUM OVERVIEW AND PURPOSE

The focus and purpose of this Addendum is to determine if the Modified Project described herein would result in new or substantially different environmental impacts than those considered and addressed in the Certified EIR. To these ends, this Addendum defines, describes, compares, and contrasts potential environmental impacts of the proposed Modified Project in the context of the environmental impacts associated with the Original Project assessed in the Certified EIR. In so doing, this Addendum substantiates consistency with applicable California Environmental Quality Act (CEQA) Guidelines provisions addressing preparation of an Addendum to a previously Certified EIR.

In these regards, as presented at *CEQA Guidelines* Section 15164, an Addendum to a Certified EIR may be prepared if only minor technical changes or additions are necessary and none of the conditions described in Section 15162, calling for the preparation of a subsequent or supplemental EIR, have occurred. Further, Public Resources Code Section 21166 prohibits preparation of a subsequent or supplemental EIR for a certified project unless substantial project changes are proposed requiring major revisions to the Certified EIR; a substantial change in circumstances has occurred requiring major revisions to the Certified EIR; or new information becomes available requiring major revisions to the Certified EIR. None of these conditions apply to the Modified Project.

Based upon the information provided in this Addendum, the proposed Modified Project would not result in any new significant impacts, nor would the Modified Project result in a substantial increase in the severity of any previously-identified environmental impact considered in the Certified EIR. Therefore, an Addendum to the Certified EIR is the appropriate document that will comply with CEQA requirements for the proposed Modified Project.

1.3 DOCUMENT ORGANIZATION

This Addendum is presented in four sections, as follows:

- **Section 1.0**, *Introduction*, provides an overview of the Original and Modified Projects and their context.
- Section 2.0, Modified Project Description, presents the Modified Project in greater detail.
- Section 3.0, Environmental Analysis Summary, summarizes and compares environmental impacts of the Original Project and Modified Project under all CEQA Guidelines Appendix G environmental topical issues. Please refer also to the Environmental Checklist Form presented at Addendum Appendix A.
- **Section 4.0**, *Determination*, presents the determination regarding the appropriate environmental document for the Modified Project.
- Section 5.0, Mitigation Summary, contains a table summarizing impacts and mitigation from the Certified EIR, and presents any additional mitigation or modified mitigation required of the Modified Project. Unless otherwise noted, mitigation previously required of the Original Project pursuant to the Certified EIR would also be required of the proposed Modified Project.

1.4 CONCLUSIONS

This Addendum substantiates that implementation and operation of the Modified Project described and evaluated herein would not result in any significant new, different, additional, or substantially increased environmental impacts than were previously considered and addressed in the Certified EIR.

CEQA documentation for the Modified Project does not require any major revision of the Certified EIR, nor would the Modified Project result in conditions that would require preparation of a Subsequent or Supplemental EIR as described in the CEQA Guidelines.

2.0 Modified Project - Description

2.0 MODIFIED PROJECT - DESCRIPTION

2.1 OVERVIEW

The Pomona Hyatt Place Hotel Project (Original Project) was approved by the City of Pomona (City) in August 2016. The Original Project comprised the following primary elements:

- A 6-story, 200-room Hyatt Place + Hyatt House Hotel with conference facilities and supporting amenities totaling approximately 159,000 square feet; and
- A free-standing, 3-story Office Building totaling approximately 75,000 square feet.

The proposed Modification to the Original Project (Modified Project) would increase the Hyatt Place + Hyatt House Hotel (Hotel) use by 15 rooms (to a total of 215 rooms) yielding a total Hotel building area of approximately 161,063 square feet; and would replace the currently entitled 3-story, 75,000-square-foot Office Building with a multi-story, mixed-use building (Mixed-Use Building) comprising a Health Club (preliminarily identified as a "LA Fitness") totaling approximately 46,273 square feet; and 95 residential apartment units. The Modified Project would also implement necessary supporting site improvements including, but not limited to: parking, landscaping, lighting, and signage. No other aspects of the Original Project would be substantively affected by the Modified Project.

Primary facilities proposed by the Original Project and Modified Project are summarized and compared at Table 2.1-1.

Table 2.1-1
Development Comparison Summary
Original Project and Modified Project

| Land Use | Original Project | Modified Project |
|----------------------|------------------------|--|
| Hotel | 159,000 SF (200 Rooms) | 161,063 SF (215 Rooms) |
| General Office Bldg. | 75,000 SF | |
| Mixed-Use Bldg. | | 46,273 SF LA Fitness Center; 95 Apartments |

Sources: Original Project Development Summary from *Pomona Hyatt Place Hotel Project Environmental Impact Report* (SCH No. 2016011079); Modified Project Development Summary from Pomona Lot 9 Development Concept, April 2018.

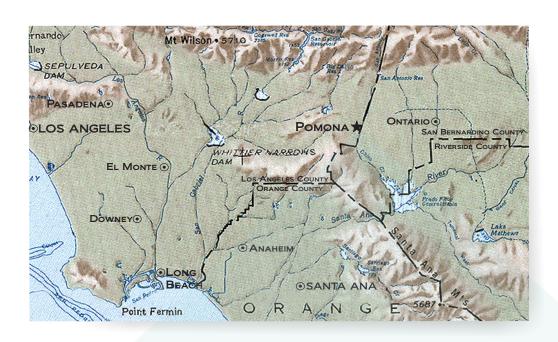
2.2 SITE DESCRIPTION

The Original Project site comprises approximately 14.88 acres located in the southerly "Lot 9" portion of the Pomona Ranch Plaza (Plaza). Location and configuration of the Original Project site is presented at Figure 2.2-1. No alteration of the Original Project site location or its boundaries is proposed or required under the Modified Project.

2.3 EXISTING LAND USES

Existing land uses are illustrated at Figure 2.3-1 and are summarized below.

- Mixed-Use Building Site: Vacant disturbed property;
- **Hyatt Place + Hyatt House Hotel Site:** Vacant, pending construction of hotel uses;
- East: Office uses;
- West: Office and commercial/retail uses;
- **South:** State Route 60 (SR-60) properties south of SR-60 are vacant;
- North: Northerly of the Mixed-Use Building site are various Plaza commercial/retail uses.







Source: Google Earth; Applied Planning, Inc.







2.4 EXISTING GENERAL PLAN LAND USE AND ZONING DESIGNATIONS

Existing General Plan Land Use and Zoning designations applicable to the Original Project and Modified Project are summarized below.

2.4.1 General Plan Land Use Designations

The City of Pomona General Plan Update (General Plan) Chapter 6, Figure 6.3, *Pomona Tomorrow*, graphically presents the general configuration and assignment of future City land uses or Place Types. The Modified Project would not require amendment to the General Plan or any General Plan Place Type(s). General Plan Place Types assigned to the Mixed-Use Building Site/Hotel Site and adjacent properties are identified below.

- Mixed-Use Building Site/Hotel Site: The City of Pomona General Plan Land Use Map designates the Original Project site including the Mixed-Use Building site and Hotel site as a "Transit-Oriented District" Place Type. The Transit Oriented District Place Type establishes and promotes a range of concentrated retail, commercial, residential, and civic uses and complementary development at appropriate scales; at locations with appropriate market focus; and that take advantage of available access and/or encourage multi-modal access. Uses implemented under the Modified Project are allowed under the site's current General Plan Transit-Oriented District Place Type.
- East: To the east, properties are designated Transit-Oriented District Place Type.
- **West:** Properties to the west are designated Transit-Oriented District Place Type.
- **North:** Properties are designated Transit-Oriented District Place Type.
- **South:** Properties adjacent to the south, across SR-60 are designated as an "Open Space" Place Type.

2.4.2 Zoning Designations

Zoning of the Pomona Ranch Plaza in total (including zoning of the Original Project) is established by the Phillips Ranch Specific Plan (Specific Plan). The Specific Plan was amended in 2016 to reflect General Plan Place Types assigned to the Pomona Ranch Plaza as part of the City General Plan Update process (see: *Phillips Ranch Specific Plan, 2016 Amendment, 2016 Specific Plan)*. The Modified Project would not require any amendment to the 2016 Specific Plan or the Specific Plan land use designations. The 2016 Specific Plan land use designations of the Mixed-Use Building Site/Hotel Site and adjacent properties are identified below.

- Mixed-Use Building Site/Hotel Site: The 2016 Specific Plan land use designation of the Mixed-Use Building Site/Hotel Site is "Transit Oriented District Neighborhood." The 2016 Specific Plan at Section 2.0, Development Standards; and Section 3.0, Development Regulations identifies permitted uses and guiding standards/regulations applicable to the Transit Oriented District Neighborhood land use. Uses and development types proposed by the Modified Project are permitted or conditionally permitted within the Transit Oriented District Neighborhood land use.
- **East:** Properties to the east are designated Transit Oriented District Neighborhood under the 2016 Specific Plan.
- West: Properties to the west are designated Transit Oriented District Neighborhood under the 2016 Specific Plan.
- **North:** Properties to the north are designated Transit Oriented District Neighborhood under the 2016 Specific Plan.
- **South:** Properties to the south, across SR-60, are designated Open Space under the 2016 Specific Plan.

2.5 PROJECT ELEMENTS

2.5.1 Demolition and Site Preparation

In preparation of building construction, portions of the Modified Project site not currently affected by construction activities would be grubbed, rough-graded, and fine graded. Any construction debris generated would be recycled or disposed of consistent with City requirements.

2.5.2 Development Concept

2.5.2.1 Site Plan, Site Design Concepts

The Mixed-Use Building described herein would be constructed on the site currently entitled for development of an Office Building of up to 75,000 square feet, approved by the City in 2016 as one component of the Original Project. The 15 additional rooms and increased building area proposed as part of the Hotel use would be incorporated within the approved Hotel site with no substantive alteration of the Hotel location or its orientation. The Modified Project Site Plan Concept is presented at Figure 2.5-1. The proposed Mixed-Use Building Site Design Concept is presented at Figure 2.5-2.

Addendum to the Pomona Hyatt Place Hotel Project Environmental Impact Report (SCH No. 2016011079)

¹ Information provided by the Applicant indicates that total ground floor Hotel building area would increase from approximately 24,238 square feet to approximately 26,152 square feet (an approximate 8 percent increase), and would be accommodated within the approved Hotel building site area.

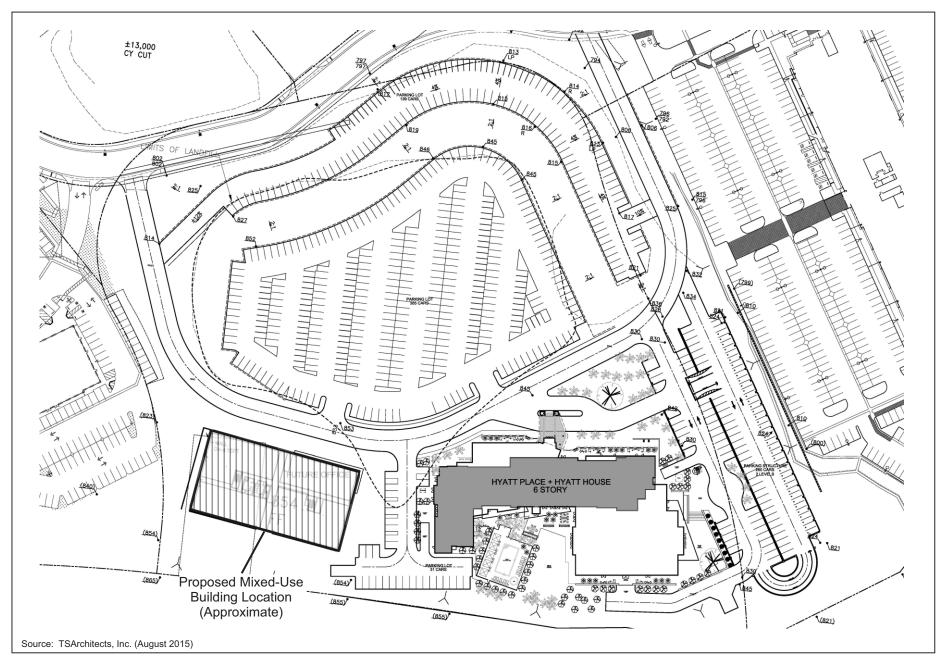




Figure 2.5-1 Modified Project Site Plan Concept

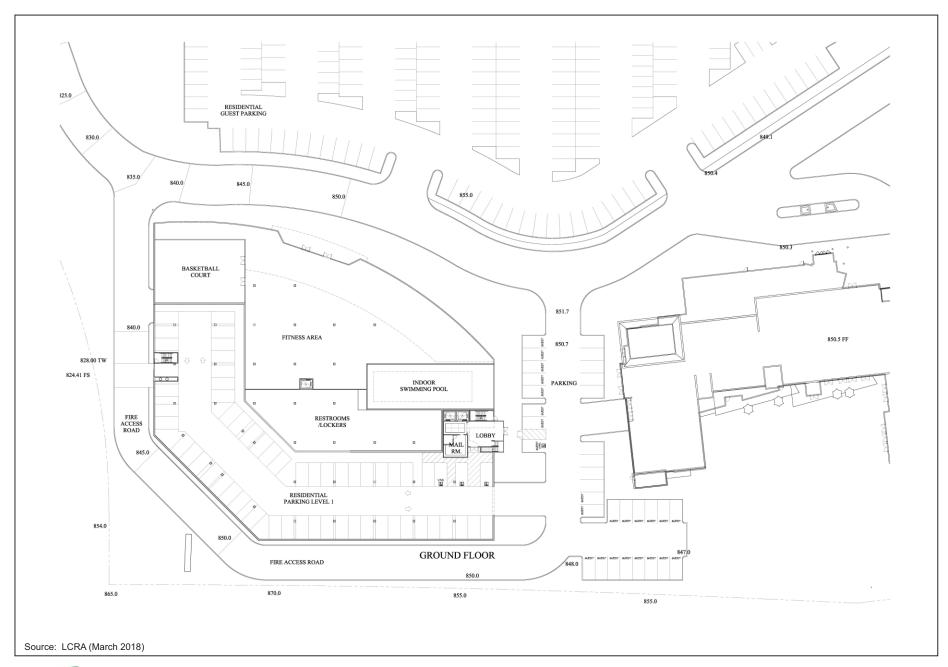




Figure 2.5-2 Mixed-Use Building Site Design Concept

2.5.2.2 Architectural Design Concepts

A view orientation map and rendered views of the design concepts for the Original Project Hotel use and the proposed Modified Project Mixed Building Use are presented at Figures 2.5-3 through 2.5-8. No substantive alteration of the Original Project Hotel architectural design concepts (Figures 2.5-4 through 2.5-7) is proposed under the Modified Project. A rendered view of the new Mixed-Use Building is presented at Figure 2.5-8.

The Project Hotel and Mixed-Use Building designs would express contemporary urban elements and architectural features. Varied combinations of material would be represented, allowing for flexibility and compatibility with geographical/regional locations and local settings. Fire-rated construction and fully automatic sprinkler systems would be provided for all Project buildings. All final building designs would be subject to review and approval by the City.

2.5.3 Access

Primary access to the Pomona Ranch Plaza is currently provided by two (2) signalized driveways off Rio Rancho Road, one each at Lone Ridge Road and Rancho Camino Drive. Internal to the Plaza, as with the Original Project, access to the Modified Project site would be provided by a STOP-controlled looped driveway connecting to Rancho Camino Drive. Driveways (3) from the proposed looped driveway would provide access to the Hotel and Mixed-Use Building and associated parking areas.

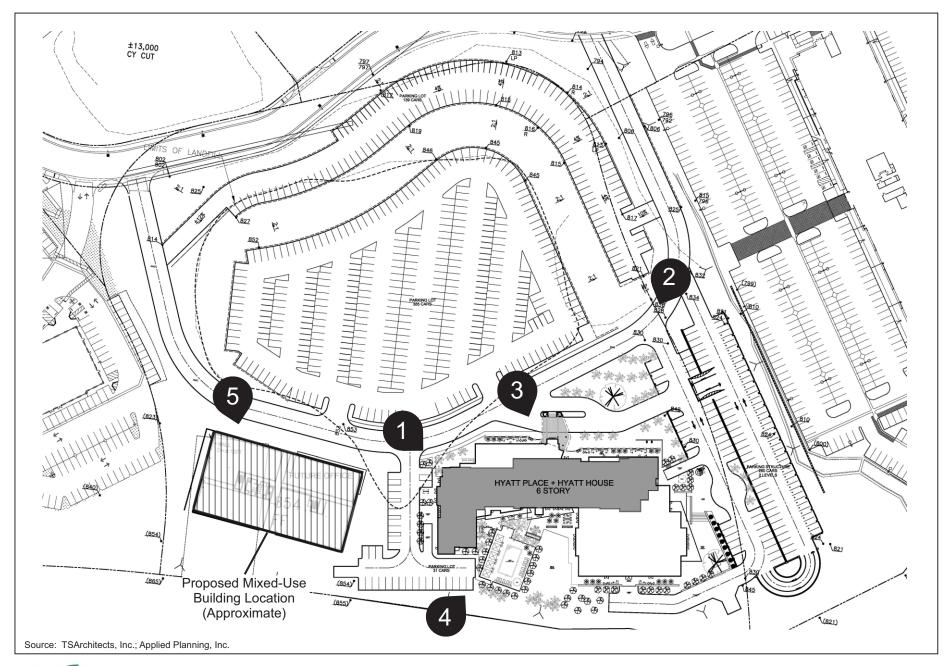




Figure 2.5-3 Hotel & Mixed Use View Orientation Map





















2.5.4 Parking

Under the Original Project and the Modified Project, the proposed Hyatt Place + Hyatt House Hotel would be provided a total of 468 parking spaces - configured as 208 surface parking spaces and 260 parking spaces to be provided within an easterly adjacent two-level parking structure.

The Original Project Office Building use and associated parking areas would be replaced by the Modified Project Mixed-Use Building and its parking facilities. Parking provided for the Mixed-Use Building would total 449 spaces: 264 parking spaces would be provided for the Mixed-Use Building fitness center component; 185 parking spaces, including 24 guest parking spaces, would be provided for the Mixed-Use Building apartments.

Parking areas within the Modified Project in total would be shared between uses to the extent practicable. Unless otherwise noted herein, or otherwise specified by the City, all parking areas to include parking stalls, drive aisles, parking lot landscaping and hardscaping, would be designed and constructed pursuant to City requirements as outlined at City of Pomona Zoning Ordinance.

2.5.5 Site Landscaping

Under both the Original Project and the Modified Project, perimeter and internal landscaping would be provided consistent with provisions of the City Municipal Code. The implemented landscape concept would enhance the appearance of parking areas, provide shade and visual interest, define entry/access points, accentuate site and architectural features, accommodate water quality treatment features (bioretention/biofiltration areas) and provide screening.

2.5.6 Streetscape

Under both the Original Project and the Modified Project, driveways would connect to Rancho Camino Drive. Under both scenarios, and unless otherwise required by the City, Rancho Camino Drive frontage sidewalks and landscape/streetscape areas would be implemented, continuing existing sidewalks and landscape/streetscape features.

2.5.7 Infrastructure/Utilities

Infrastructure and utilities that would serve the Original Project are summarized below. No substantive alteration of modification of services or service providers described below would be required under the Modified Project.

2.5.7.1 Water/Sewer Services

Water and sewer services would be provided by the City of Pomona Water & Wastewater Operations Division. Water service extensions would connect to existing facilities located in the abutting Rancho Camino Drive right-of-way. Sanitary sewer services would similarly be provided by connection to the existing sewer main located within Rancho Camino Drive. Alignment of service lines, and connection to existing services would be as required by the City. Wastewater would be conveyed from the Project for treatment at the Pomona Water Reclamation Plant (PWRP).

2.5.7.2 Stormwater Management Systems

Stormwater management systems comprehensively include proposed drainage improvements, and facilities and programs which act to control and treat stormwater pollutants. Under the Stormwater Management System Concept, existing drainage patterns would be generally maintained. Under post-development conditions, stormwater discharges would be conveyed off-site to the existing 66-inch reinforced concrete pipe (RCP) located northeasterly of the subject site, at the terminus of the Rancho Camino Drive cul-de-sac. This 66-inch RCP has been designed to convey runoff from future commercial buildout of the Pomona Ranch Plaza, including stormwater discharges resulting from development of the subject site.

Developed on-site stormwater would be collected via surface inlets and internal secondary drain lines and would be directed to two main storm drain lines "A" and "B." Proposed storm drain lines A and B would be aligned along the site perimeter of the subject site; and would confluence at the northeasterly limits of the site prior to connection with the existing 24-inch RCP at the south edge of the Rancho Camino Drive cul-de-sac. This 24-inch RCP would then connect northerly to the previously noted 66-inch RCP discharging northeasterly to the 12-foot x 12-foot reinforced concrete box (RCB) culvert underlying the SR-71 freeway.

A Storm Water Pollution Prevention Plan (SWPPP), and Standard Urban Stormwater Management Plan (SUSMP) would be implemented consistent with City requirements. In this manner, stormwater discharges would comply with requirements of the City's National Pollutant Discharge Elimination System (NPDES) Permit and other water quality requirements or storm water management programs specified by the Regional Water Quality Control Board (RWQCB). In combination, implementation of the SWPPP, SUSMP, and compliance with NPDES Permit and RWQCB requirements act to protect City and regional water quality by preventing or minimizing potential stormwater pollutant discharges to the watershed.

2.5.7.3 Solid Waste Management

It is anticipated that solid waste generated by the proposal would be conveyed by existing service providers to either the El Sobrante Landfill in Riverside County, or to the Mid-Valley Sanitary Landfill in San Bernardino County. The California Integrated Waste Management Act under the Public Resources Code required that local jurisdictions divert at least 50% of all solid waste generated by January 1, 2000. The City remains committed to continuing its existing waste reduction and minimization efforts with the programs that are available through the City. Additionally, as of July 1, 2012, the State of California required that all businesses that generate four cubic yards or more of refuse per week implement a recycling program. This requirement is set forth in Assembly Bill 341, which was passed by the California legislation in October 2011. All development proposals are required to comply with the California Integrated Waste Management Act and AB 341 as implemented by the City.

2.5.7.4 Electricity

Electrical service would be provided by Southern California Edison (SCE). New service lines would be placed underground. Alignment of service lines and connection to existing services would be as required by SCE. Any necessary surface-mounted equipment, such as transformers, meters, service cabinets, and the like, would be screened and would conform to City/SCE setback requirements.

It is further noted that to allow for, and facilitate construction activities, provision of temporary SCE electrical services improvements would be required. The scope of such temporary improvements is considered to be consistent with and reflected within the total scope of development proposed and evaluated here. Similarly, impacts resulting from provision of temporary SCE services would not be substantively different from, or greater than, impacts resulting from the scope development of the Project in total.

2.5.7.5 Natural Gas

Natural gas service would be provided by the Gas Company. Existing service lines would be extended to serve the proposed uses. Alignment of service lines and connection to existing services would be as required by the Gas Company.

2.5.7.6 Communications Services

Communications services, including wired and wireless telephone and internet services are available through numerous private providers and would be provided on an asneeded basis. As one component of site development, wires, conductors, conduits, raceways, and similar communications improvements would be installed underground. Any necessary surface-mounted equipment, e.g., terminal boxes, transformers, meters, service cabinets, etc., would be screened and would conform to City/purveyor setback requirements.

2.5.8 Police and Fire Protection Services

Police and fire protection services are currently available to the Plaza and the subject site, and are listed below.

- Fire Protection Services (Los Angeles County Fire Department); and
- Police Protection Services (City of Pomona Police Department).

2.5.9 Energy Efficiency/Sustainability

Energy-saving and sustainable design features and operational programs would be incorporated in all proposed facilities. Notably, facilities would comply with applicable provisions of the California Green Building Standards Code (CALGreen; CCR, Title 24, Part 11) as implemented by the City of Pomona.

To reduce water demands and associated energy use, development proposals would be required to implement a Water Conservation Strategy and demonstrate a minimum 20% reduction in indoor water usage when compared to baseline water demand (total expected water demand without implementation of the Water Conservation Strategy).²

Development proposals would also be required to implement the following:

- Landscaping palette emphasizing drought-tolerant plants consistent with provisions of the State Model Water Efficient Landscape Ordinance and/or City of Pomona requirements;
- Use of water-efficient irrigation techniques consistent with City of Pomona requirements;
- U.S. Environmental Protection Agency (EPA) Certified WaterSense labeled or equivalent faucets, high-efficiency toilets (HETs), and other plumbing fixtures.

2.5.10 Construction Traffic Management Plan

Temporary and short-term traffic detours and traffic disruptions could result during Project construction activities including implementation of access and circulation improvements noted above. Accordingly, the Applicant would be responsible for the preparation and submittal of a construction area traffic management plan (Plan) to be reviewed and approved by the City. Typical elements and information incorporated in the Plan would include but would not be limited to:

- Name of on-site construction superintendent and contact phone number.
- Identification of Construction Contract Responsibilities For example, for excavation and grading activities, describe the approximate depth of excavation, and quantity of soil import/export (if any).

-

² Reduction of 20% indoor water usage is consistent with the current CalGreen Code performance standards for residential and non-residential land uses. Per CalGreen, the reduction shall be based on the maximum allowable water use per plumbing fixture and fittings as required by the California Building Standards Code.

- **Identification and Description of Truck Routes** to include the number of trucks and their staging location(s) (if any).
- Identification and Description of Material Storage Locations (if any).
- Location and Description of Construction Trailer (if any).
- Identification and Description of Traffic Controls Traffic controls shall be provided per the Manual of Uniform Traffic Control Devices (MUTCD) if the occupation or closure of any traffic lanes, parking lanes, parkways or any other public right-of way is required. If the right-of-way occupation requires configurations or controls not identified in the MUTCD, a separate traffic control plan must be submitted to the City for review and approval. All right-of-way encroachments would require permitting through the City.
- **Identification and Description of Parking** Estimate the number of workers and identify parking areas for their vehicles.
- Identification and Description of Maintenance Measures Identify and describe
 measures taken to ensure that the work site and public right-of-way would be
 maintained (including dust control).

The Plan must be reviewed and approved by the City prior to the issuance of the building permit. The Plan and its requirements would also be required to be provided to all contractors as one component of building plan/contract document packages.

2.6 MODIFIED PROJECT OPENING YEAR

The proposed Modified Project in total would be developed in a manner responsive to market conditions and in concert with availability of necessary infrastructure and services. For the purposes of this analysis, the Modified Project Opening Year is defined as 2020.

2.7 MODIFIED PROJECT OBJECTIVES

The primary goal of the Modified Project is the development of the subject site with a productive mix of hotel, fitness center and apartment uses. Complementary objectives of the Project include the following:

- Implement land uses that are consistent with the City of Pomona General Plan land use and development density vision for the subject site;
- Support mobility goals and objectives by taking advantage of regional access provided by adjacent SR-71 freeway and local access provided by Rio Rancho Road;
- Take advantage of the site's visibility from adjacent SR-60 and SR-71 freeways;
- Develop the subject site with high-quality hotel uses offering a unique guest experience;
- Establish hotel, fitness center and apartment uses that are compatible with, and complement, existing uses within the Pomona Ranch Plaza;
- Attract and accommodate new and additional development serving local and regional markets;
- Attract visitors, business travelers, meeting/convention activities, and fitness center tenants to the City of Pomona;
- Provide new apartment uses that expand and diversify the locally available housing stock; and that responds to the current and projected demand for residential products within the City.
- Transition the Project site from its current unimproved/vacant state to a
 commercial/residential development, with resulting new fiscal benefits to the City
 of Pomona. Benefits would include new sales/room tax revenues and increased
 property tax revenues.

• Implement employment-generating land uses that would create new jobs available to City residents.

2.8 DISCRETIONARY APPROVALS AND PERMITS

Discretionary actions, permits and related consultation(s) necessary to approve and implement the Project include, but are not limited to, the following.

2.8.1 Lead Agency Discretionary Actions and Permits

- CEQA Compliance. Adoption of this Addendum.
- Approval of a Tentative Parcel Map. The Project proposes a commercial parcel
 map that would create and/or reconfigure lots for development of the Modified
 Project facilities. At the direction of the City, the Tentative Parcel Map may also
 dedicate necessary public rights-of-way and establish easements.
- Approval of a Conditional Use Permit for the proposed hotel use, to include allowance for on-sale of alcohol ancillary to hotel bar/lounge/banquet activities. Please refer also to Municipal Code Section .580, *Conditional Use Permits*.
- Various City of Pomona construction, grading, and encroachment permits are required to allow implementation of the Project facilities.

2.8.2 Other Consultation and Permits

Based on the current Modified Project Design Concept, anticipated consultation and permits necessary to realize the proposal would likely include, but are not limited to, the following:

 Permitting may be required by/through the Regional Water Quality Control Board (RWQCB) pursuant to requirements of the City's National Pollutant Discharge Elimination System (NPDES) Permit;

- Permitting may be required by/through the South Coast Air Quality Management District (SCAQMD) for certain equipment or land uses that may be implemented; and
- Various construction, grading, and encroachment permits allowing implementation of proposed facilities.

3.0 Environmental Analysis Summary

3.0 ENVIRONMENTAL ANALYSIS SUMMARY

3.1 INTRODUCTION

The following discussions summarize potential environmental impacts of development proposed by the Modified Project within the context of the environmental analysis presented in the Certified EIR. Included in this Section is a summary comparison of development and entitlements proposed by the Modified Project in relation to the Original Project.

The summary discussions presented here support the determination that approval and implementation of the proposed Modified Project would not result in any significant, new, different, or substantially increased impacts not already considered and addressed in the Certified EIR; and that substantive environmental analysis beyond that presented in this Addendum to the Certified EIR is not required.

3.2 APPROVED ORIGINAL PROJECT, PROPOSED MODIFIED PROJECT

The Original Project evaluated under the Certified EIR and the proposed Modified Project evaluated in this Addendum to the Certified EIR are summarized below.

The Pomona Hyatt Place Hotel Project (Original Project) was approved by the City of Pomona (City) in August 2016. The Original Project comprised the following primary elements:

- A 6-story, 200-room Hyatt Place + Hyatt House Hotel with conference facilities and supporting amenities totaling approximately 159,000 square feet; and
- A free-standing, 3-story Office Building totaling approximately 75,000 square feet.

The proposed Modification to the Original Project (Modified Project) would increase the Hyatt Place + Hyatt House Hotel (Hotel) use by 15 rooms (to a total of 215 rooms) yielding a total Hotel building area of approximately 161,063 square feet; and would replace the currently entitled 3-story, 75,000-square-foot Office Building with a multi-story, mixed-use building (Mixed-Use Building) comprising a Health Club (preliminarily identified as a "LA Fitness") totaling approximately 46,273 square feet; and 95 residential apartment units. The Modified Project would also implement necessary supporting site improvements including, but not limited to: parking, landscaping, lighting, and signage. No other aspects of the Original Project would be substantively affected by the Modified Project.

3.3 PREVIOUS ENVIRONMENTAL DOCUMENTATION, DOCUMENTS INCORPORATED BY REFERENCE

Section 15150 of the State *CEQA Guidelines* permits and encourages environmental documents to incorporate by reference other documents that provide relevant data. The documents outlined in this Section are hereby incorporated by reference, and the pertinent material is summarized throughout this Addendum. All documents incorporated by reference are available through the City of Pomona Planning Department, 505 South Garey Avenue, Pomona, California 91766.

- Pomona Hyatt Place Hotel Project Environmental Impact Report (SCH No. 2016011079) (Certified EIR). The Certified EIR comprehensively addressed the potential environmental impacts resulting from the development of the Original Project as summarized above. The Certified EIR, including all supporting technical studies, is incorporated in this Addendum by reference.
- City of Pomona General Plan and General Plan EIR. The Pomona Comprehensive General Plan (General Plan) provides the blueprint for future physical development of the City of Pomona. To this end, the General Plan establishes City land use and development policies, and identifies planned land uses and supporting infrastructure systems. The City of Pomona Comprehensive General Plan establishes a Plan for Land Use and six (6) supporting functional

Elements: Environmental Resources, Community Design, Residential, Economic Development, Circulation/Transportation, and Human Resources. Land uses and development under the approved Original Project and the proposed Modified Project are allowed under the site's current "Transit Oriented District" General Place Type (Land Use) designation.

City of Pomona Zoning Ordinance.

The City of Pomona Zoning Ordinance (Zoning Ordinance) codifies and complements the City General Plan. The Zoning Ordinance, in effect, provides the mechanism to implement and enforce the goals, objectives, policies and programs articulated in the General Plan. Land uses and development under the approved Original Project and the proposed Modified Project are allowed under the site's 2016 Phillips Ranch Specific Plan Zoning (Specific Plan) designation.

3.4 CERTIFIED EIR AND ADDENDUM ENVIRONMENTAL CONCLUSIONS

3.4.1 Overview

All potential environmental effects of the Original Project are substantiated to be less-than-significant within the Certified EIR and accompanying Certified EIR Initial Study (Certified EIR IS) or are reduced below levels of significance with application of the Certified EIR mitigation measures. Similarly, as substantiated in this Addendum to the Certified EIR, all potential environmental impacts of the Modified Project would be less-than-significant, or would be reduced to levels that would be less-than-significant with application of proposed mitigation.

3.4.2 Basis for Addendum

For each environmental topic presented in the Certified EIR, the following summary analyses (and the expanded discussions presented at Appendix A to this Addendum) substantiate that:

- No substantial changes are proposed which will require major revisions of the previous EIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;
- No substantial changes in circumstances have occurred which will require major revisions to the Certified EIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;
- No new information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the EIR was certified, shows any of the following:
 - Approval of the Modified Project would result in any significant effects not discussed in the Certified EIR (it would not);
 - Significant effects previously examined would be substantially more severe than shown in the Certified EIR (they would not);
 - Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative (no previous mitigation or alternatives are declined); and
 - Mitigation measures or alternatives which are considerably different from those analyzed in the Certified EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative (no new mitigation is declined).

As provided for under *CEQA Guidelines* Section 15162, this Addendum has therefore been prepared, satisfying CEQA environmental analysis and documentation requirements for the adoption of the proposed Modified Project.

3.4.3 Environmental Issues - Comparative Summaries

The following discussions summarize comparative impacts of the approved Original Project and the proposed Modified Project. Sequencing of the topical issues here parallels their presentation within the *CEQA Guidelines* Appendix G Environmental Checklist. Certified EIR conclusions summarized in the following discussions include analysis and conclusions of the Certified EIR IS.

3.4.3.1 Aesthetics

The Certified EIR substantiates that the Original Project would have no impacts or lessthan-significant impacts related to aesthetics/light and glare. The Modified Project does not propose or require uses or activities that would substantively change any of the conclusions of the Certified EIR.

Summary

As with the Original Project, the Modified Project would have no impacts or less-thansignificant impacts related to aesthetics/light and glare. No changed or new information has been identified to indicate that any potential aesthetics impacts resulting from the Modified Project would be substantively greater than or different from those that would result from development under the Original Project.

3.4.3.2 Agriculture and Forest Resources

The Certified EIR substantiates that the Original Project would have no impacts related to agricultural/forest resources.

Agricultural resources conditions at the subject site and the surrounding area have not changed since the preparation of the 2000 MND. The area remains devoid of any designated or valuable farmlands. The Modified Project would have no impact on farmland resources.

Summary

As with the Original Project, the Modified Project would have no impacts or less-thansignificant impacts related to agricultural/forest resources. No changed or new information has been identified to indicate that any potential agriculture and forest resources impacts resulting from the Modified Project would be substantively greater than or different from those that would result from development under the Original Project.

3.4.3.3 Air Quality

The Certified EIR substantiates that air quality impacts of the Original Project would be less-than-significant, or would be less-than-significant with the application of proposed mitigation.

As discussed in this Addendum and supporting Air Quality/Greenhouse Gas Analysis prepared for the Modified Project (Addendum Appendix B), although air pollutant emissions in aggregate would increase under the Modified Project, the Addendum discussions substantiate that the Modified Project would not result in exceedance of any applicable South Coast Air Quality Management District (SCAQMD) significance thresholds. Moreover, the Addendum discussions substantiate that the Modified Project would not conflict with the applicable AQMP.

The Modified Project would therefore not result in new or substantively different or substantively increased impacts concerning conflict with applicable AQMP; violation of applicable air quality standards; and cumulatively considerable increases to non-attainment conditions.

The Certified EIR substantiates that the Original Project would result in less-thansignificant impacts related localized exposure of sensitive receptors to substantial pollutant sources. Localized construction-source emissions impacts resulting from the Modified Project would be comparable to those resulting from the Original Project. That is, the types of construction equipment employed and the peak daily emissions generated would be substantively the same under both the Original Project and the Modified Project. Under both the Original Project and the Modified Project, localized construction-source emissions would not exceed applicable SCAQMD Localized Significance Thresholds (LSTs) and would be less-than-significant. Due to increased traffic volumes, the Modified Project would likely increase localized operational-source emissions concentrations when compared to the Original Project. Under the Original Project, localized emissions concentrations would be order(s) of magnitude below applicable SCAQMD LSTs. The approximately 23 percent increase in total Average Daily Traffic (ADT) resulting from the Modified Project would not substantively affect localized emissions concentrations when compared to the Original Project, and localized emissions concentrations would not approach much less exceed applicable SCAQMD LSTs. Under both the Original Project and the Modified Project, localized operational-source emissions impacts would be less-than-significant.

Based on the preceding, the Modified Project would therefore not result in new or substantively different or substantively increased impacts concerning exposure of sensitive receptors to substantial pollutant concentrations.

The Certified EIR substantiates that potential for the Original Project to create objectionable odors affecting a substantial number of people would be less-than-significant. As with the Original Project, the Modified Project does not propose or require uses or activities that would create objectionable odors. The Modified Project would therefore not result in new or substantively different or substantively increased impacts concerning creation of objectionable odors that could affect a substantial number of people.

Summary

As with the Original Project, potential air quality impacts of the Modified Project would be less-than-significant, or would be less-than-significant with the application of mitigation. No changed or new information has been identified to indicate that any potential air quality impacts resulting from the Modified Project would be substantively greater than or different from those that would result from development under the Original Project.

3.4.3.4 Biological Resources

The Certified EIR substantiates that the potential for Original Project to adversely affect biological resources would be less-than-significant. Biological resources conditions at the subject site and the surrounding area have not changed since the preparation of the Certified EIR. The area remains devoid of any sensitive or protected biological resources. As with the Original Project, the Modified Project would result in less-than-significant impacts to biological resources.

Summary

As with the Original Project, biological resources impacts of the Modified Project would be less-than-significant. No changed or new information has been identified to indicate that any potential biological resources impacts resulting from the Modified Project would be substantively greater than or different from those that would result from development under the Original Project.

3.4.3.5 Cultural Resources

The Certified EIR substantiates that the potential for Original Project to adversely affect cultural resources would be less-than-significant.

Cultural resources conditions at the subject site and the surrounding area have not changed since the preparation of the Certified EIR. The area remains devoid of any evident historic resources, archaeological resources, paleontological resources, unique geologic resources, or presence of human remains. The EIR prepared for the Pomona Ranch Plaza prior to its development in the mid-1990s indicates that "No historically or prehistorically significant sites or structures are known to exist" on-site, and that "No traces of unique cultural resources, or religious or sacred uses have been identified on-site or in the general vicinity." (Initial Study, p. 24, in the *City of Pomona Regional Retail Center Environmental Impact Report*, SCH# 1993021028, February 22, 1994). Based on this previous environmental review, and known past disturbances of the subject site, the potential for the Original Project to cause a substantial adverse change in the significance of historic, archaeological and/or paleontological cultural resources was determined to be less-than-significant.

There is no substantiated potential for the Modified Project to cause or result in an adverse change in historic resources, archaeological resources, paleontological resources, unique geologic features, or to disturb human remains.

Summary

As with the Original Project, the potential for the Modified Project to adversely affect cultural resources would be less-than-significant. No changed or new information has been identified to indicate that any potential cultural resources impacts resulting from the Modified Project would be substantively greater than or different from those that would result from development under the Original Project.

3.4.3.6 Geology and Soils

The Certified EIR substantiates that the Original Project would have no impacts related to geology/soils, or that potential geology/soils impacts would be less-than-significant.

Underlying geology/soils conditions at the subject site and the surrounding area have not changed since the preparation of the Certified EIR. As part of the City's standard review and approval of development projects, the Modified Project would be required to comply with requirements of a final City-approved geotechnical report, and applicable provisions of the Uniform Building Code UBC and California Building Code (CBC), to include design- and site-appropriate means to avoid or minimize any fault rupture, seismic soils conditions, or ground shaking concerns.

Summary

As with the Original Project, the Modified Project would have no impacts related to geology/soils, and potential geology/soils impacts would be less-than-significant. No changed or new information has been identified to indicate that any potential geology and soils impacts resulting from the Modified Project would be substantively greater than or different from those that would result from development under the Original Project.

3.4.3.7 Greenhouse Gases

The Certified EIR substantiates that the Original Project would result in less-thansignificant greenhouse gas (GHG) emissions impacts.

Potential greenhouse gas emissions impacts of the Modified Project is presented in the Modified Project AQ/GHG Analysis. Due primarily to increased vehicular-source GHG emissions, total GHG emissions under the Modified Project would be increased when compared to GHG emissions that would be generated by the Original Project. Notwithstanding this increase in GHG emissions, the Modified Project AQ/GHG Analysis substantiates that the Modified Project would not generate GHG emissions that may have a significant impact on the environment; and that the potential for the Modified Project to conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases would be less-than-significant.

Summary

As with the Original Project, greenhouse gas emissions impacts of the Modified Project would be less-than-significant. No changed or new information has been identified to indicate that any potential GHG emissions impacts resulting from the Modified Project would be substantively greater than or different from those that would result from development under the Original Project.

3.4.3.8 Hazards and Hazardous Materials

The Certified EIR substantiates that the Original Project would have no impacts related to hazards/hazardous materials, or that potential hazards/hazardous materials impacts would be less-than-significant.

As with the Original Project, uses proposed under the Modified Project are not considered hazardous; nor consumers, users, or sources of hazards or hazardous materials. During the normal course of construction and operation activities, there would be limited transport of potentially hazardous materials (e.g., gasoline, diesel fuel, paints, solvents, fertilizer, etc.) to and from the subject site. The Modified Project would be required to comply with all City and County Hazardous Materials Management Plans

and regulations addressing transport, use, storage and disposal of these materials. The Modified Project would not require uses or activities that would result in atypical transportation, use, storage, or disposal of hazardous or potentially hazardous materials not addressed under current regulations and policies.

Subsequent to preparation of the Certified EIR, wells within the subject site have been abandoned and destroyed as required by the City and the California Department of Water Resources (DWR). Please refer to *Well Destruction Report, Pomona Ranch Plaza Development Project* (Group Delta) April 26, 2018, Addendum Appendix C.

Required remediation and capping of the Pomona Ranch Disposal Site (PRDS) is anticipated to be completed by the end of 2018. PRDS closure and capping documentation would be required by the City prior to the issuance of development permits.

As with the Original Project, the Modified Project is not affected by airfield/airport hazards.

As with the Original Project, the Modified Project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

As with the Original Project, the Modified Project would not expose people or structures to a significant risk of loss, injury or death involving wildland fires.

Summary

As with the Original Project, the Modified Project would have no impacts related to hazards/hazardous materials, or potential hazards/hazardous materials impacts would be less-than-significant. No changed or new information has been identified to indicate that any potential hazards/hazardous materials impacts resulting from the Modified Project would be substantively greater than or different from those that would result from development under the Original Project.

3.4.3.9 Hydrology and Water Quality

The Certified EIR substantiates that the Original Project would have no impacts related to hydrology/water quality, or that potential hydrology/water quality impacts would be less-than-significant.

As with the Original Project, the Modified Project would:

- Comply with construction drainage and surface runoff controls pursuant to the provisions of City grading permit(s);
- Connect to available storm drains and, if required by the City, implement on-site retention acting to control stormwater runoff from the developed site;
- Connect to the available sanitary sewer system; and
- Pursuant to the City of Pomona Code, all wastewater and stormwater discharges generated by the Modified Project would be directed to the appropriate receiving and treatment system(s).

The Modified Project is not located near any surface waters and is not located in an area subject to flooding. The Modified Project would therefore not implement structures that would impede or redirect flood waters or otherwise affect floodplain or flooding conditions. The Modified Project does not propose or require housing and would therefore not place housing within a 100-year floodplain. The Modified Project Site is not located proximate to dams or any substantive bodies of water and is therefore not subject to inundation by dam failure, seiche, or tsunami. The Modified Project Site and surrounding areas are level and stable and not subject to inundation by mudflow.

As with the Original Project, the Modified Project would comply with requirements of the City of Pomona Municipal Code and the Uniform Building Code, directing drainage and surface runoff from the Modified Project to the available storm drain system. Further, the Modified Project would be required to comply with current water quality standards and stormwater discharge requirements.

Summary

As with the Original Project, potential hydrology/water quality impacts of the Modified Project would be less-than-significant. No changed or new information has been identified to indicate that any potential hydrology/water quality impacts resulting from the Modified Project would be substantively greater than or different from those that would result from development under the Original Project.

3.4.3.10 Land Use and Planning

As substantiated in the Certified EIR, potential land use and planning impacts of the Original Project would be less-than-than-significant.

The Certified EIR notes that the area encompassing the subject site does not accommodate an established community, but rather is characterized by commercial/retail development. The nearest residences are approximately 1,000 feet removed from the Original Project uses. It is therefore unlikely that the Original Project would result in substantive offsite impacts (e.g., traffic, noise or dust generation) that would disrupt or otherwise adversely affect neighboring residential land uses.

As with the Original Project, the site of the Modified Project is located in an area of commercial/retail development, and is separated from the nearest residential uses by approximately 1,000 feet. As with the Original Project, the Modified Project would not divide an established community and would not result in offsite impacts that would divide or disrupt an established community.

As with the Original Project, land uses and development concepts proposed under the Modified Project are allowed under the site's current City General Plan Land Use designation (Transit Oriented District); and are permitted or conditionally permitted under the site's current Zoning designation (Phillips Ranch Specific Plan). The Modified Project does not propose or require a General Plan Land Use amendment or change in Zoning. As with the Original Project, the Modified Project would not conflict with any land use plans or programs adopted for the purpose of avoiding or mitigating an environmental effect.

Based on the preceding, as with the Original Project, the Modified Project would have no potential to conflict with any applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

The subject site is designated for urban development and is not regulated or otherwise affected by provisions of a habitat conservation plan or natural community conservation plan. On this basis, the Modified Project would have no potential to conflict with any applicable habitat conservation plan or natural community conservation plan.

Summary

As with the Original Project, potential land use/planning impacts of the Modified Project would be less-than-significant. No changed or new information has been identified to indicate that any potential land use and planning impacts resulting from the Modified Project would be substantively greater than or different from those that would result from development under the Original Project.

3.4.3.11 Mineral Resources

The Certified EIR substantiates that the Original Project would have no potential to adversely affect availability or recovery of mineral resources.

The subject site remains devoid of known or probable mineral resources of value. Nor would the Modified Project implement facilities or programs that would result in potential effects to off-site mineral resources of value. On this basis, as with the Original Project, the Modified Project would have no potential to affect availability or recovery of mineral resources.

Summary

As with the Original Project, the Modified Project would have no potential to adversely affect availability or recovery of mineral resources. No changed or new information has been identified to indicate that any potential mineral resources impacts resulting from the Modified Project would be substantively greater than or different from those that would result from development under the Original Project.

3.4.3.12 Noise

The Certified EIR substantiates that the Original Project would have no noise impacts, or noise impacts would be less-than-significant.

The Modified Project does not propose or require uses or activities that would substantively change any of the conclusions of the Certified EIR. The Modified Project would comply with applicable provisions of the City of Pomona Municipal Code, to include compliance with restrictions on generation of construction-source noise and construction-source vibration. This would ensure that temporary or periodic construction-source noise and construction-source vibration generated by the Modified Project would not result in exposure of persons to or generation of noise levels in excess of applicable standards. The Modified Project would incorporate Certified EIR measures that would further reduce already less-than-significant construction-source noise impacts and ensure monitored compliance with provisions of the City Noise Ordinance.

The Certified EIR substantiates that operational stationary/area-source noise generated by the Original Project would not exceed applicable City noise standards. The Modified Project would not introduce substantive new or additional operational noise sources not considered and evaluated in the Certified EIR.

The Certified EIR substantiates that vehicular-source noise impacts of the Original Project would be less-than-significant. Additional trip generation under the Modified Project would not discernibly affect area noise conditions or conclusions of the Certified EIR regarding the significance of vehicular-source noise. It is recommended that Certified EIR measures that would act to reduce the effects of off-site vehicular-source noise be carried forward as Conditions of Approval for the Modified Project.

The Original Project would not result in vibration levels that would exceed applicable City noise standards. Vibration impacts of the Original Project would therefore be-less-than-significant. Vibration impacts resulting from the Modified Project would be comparable to those resulting from the Original Project and would be less-than-significant.

The Original Project would not be substantively affected by airport/airfield noise. Neither would the Original Project contribute to airport/airfield noise. Similarly, the Modified Project would not be substantively affected by airport/airfield noise. Neither would the Modified Project contribute to airport/airfield noise.

Summary

As with the Original Project, the Modified Project would have no noise impacts, or noise impacts would be less-than-significant. No changed or new information has been identified to indicate that any potential noise impacts resulting from the Modified Project would be substantively greater than or different from those that would result from development under the Original Project.

3.4.3.13 Population and Housing

The Certified EIR substantiates that the Original Project would result in less-thansignificant impacts related to population and housing.

The Original Project does not propose residential development and would not directly contribute to population growth within the City. Additional employment opportunities generated by the Original Project would not indirectly result in substantial or unanticipated population growth.

The Modified Project would implement a maximum of 95 apartment units within the approximately 14.88-acre development site, yielding a residential density of approximately 6.4 du/ac. This is less than the maximum 80 du/ac allowed under the site's current General Plan Transit Oriented District Place Type designation. The Modified Project would therefore not induce or result in population growth not anticipated under the City General Plan. Additional employment opportunities generated by the Modified Project would not indirectly result in substantial or unanticipated population growth.

Neither the Original Project or the Modified Project would require displacement of persons or housing.

Summary

As with the Original Project, the Modified Project would result in less-than-significant impacts related to population and housing. No changed or new information has been identified to indicate that any potential population/housing impacts resulting from the Modified Project would be substantively greater than or different from those that would result from development under the Original Project.

3.4.3.14 Public Services

The Certified EIR substantiates that the potential for the Original Project to result in adverse physical impacts associated with the provision of new or physically altered public services would be less-than-significant.

All public services are available to the Original Project and the Modified Project. Consistent with the Original Project, the Modified Project would be served by existing services. The Modified Project would incrementally contribute to demands for public services generally. These demands are offset by purveyor connection and service fees and payment of City Development Impact Fees (DIF).

Residential uses proposed by the Modified Project would contribute to demands for school services and park services beyond demands of the Original Project. In no instance would service demands of the Modified Project require the construction of new facilities that would result in potentially significant environmental impacts.

Summary

As with the Original Project, potential public services impacts of the Modified Project would be less-than-significant. No changed or new information has been identified to indicate that any potential public services impacts resulting from the Modified Project would be substantively greater than or different from those that would result from development under the Original Project.

3.4.3.15 Recreation

The Certified EIR substantiates that the potential for the Original Project to increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial deterioration of the facility would occur or be accelerated would be less-than-significant.

The Original Project does not propose residential development that could result in substantive increased demands for neighborhood or regional parks or other recreational facilities.

Non-residential uses implemented under the Modified Project would not substantively affect demands on recreational facilities. However, the 95 apartment units proposed by the Modified Project could increase demands on area parks or other recreational facilities. The Applicant would be required to pay all applicable park development impact fees required of new development for the provision of Citywide parkland and park development. Further, residential uses developed pursuant to the Modified Project would incorporate on-site recreational/fitness facilities acting to offset potential demands on area recreational facilities.

Summary

As with the Original Project, potential recreational resources impacts of the Modified Project would be less-than-significant. No changed or new information has been identified to indicate that any potential recreational facilities impacts resulting from the Modified Project would be substantively greater than or different from those that would result from development under the Original Project.

3.4.3.16 Transportation/Traffic

The Certified EIR substantiates that the Original Project would have no impacts to transportation/traffic systems; that impacts would be less-than-significant; or that impacts would be less-than-significant as mitigated.

Uses proposed under the Modified Project would result in increased trip generation when compared to the Original Project. However, the Modified Project does not propose or require uses or activities that would substantively change any of the conclusions of the Certified EIR. Under the Modified Project, transportation/traffic mitigation measures from the Certified EIR MND are carried forward.

Neither the Original Project or the Modified Project would result in potentially significant transportation/traffic impacts at CMP facilities.

Neither the Original Project or the Modified Project would result in potentially significant air transportation/air traffic impacts.

Neither the Original Project or the Modified Project would result in potentially significant transportation/traffic hazards due to a design feature or incompatible uses.

Summary

As with the Original Project, the Modified Project would have no impacts to transportation/traffic systems; impacts would be less-than-significant; or impacts would be less-than-significant as mitigated. No changed or new information has been identified to indicate that any potential transportation/traffic impacts resulting from the Modified Project would be substantively greater than or different from those that would result from development under the Original Project.

3.4.3.17 Tribal Cultural Resources

The Certified EIR substantiates that the potential for the Original Project to cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 would be less-than-significant.

There are no known Tribal Cultural Resources (TCRs) within the subject site. Nor is it anticipated that the Original Project would adversely affect off-site Tribal Cultural Resources. Additionally, as noted in the Certified EIR IS, Tribal Resources consultation with requesting Tribes would be accomplished as provided for under *AB 52*, *Gatto. Native*

Americans: California Environmental Quality Act. No potentially affected tribes have requested consultation regarding the Original Project.

Evaluation of impacts to TCRs pursuant to *AB 52, Gatto. Native Americans: California Environmental Quality Act* applies only to CEQA projects that are required to file a Notice of Preparation for an Environmental Impact Report, or Notice of Intent to Adopt a Negative Declaration or Mitigated Negative Declaration. Because the Modified Project would not be required to file any of the mentioned documents, potential impacts to TCRs is not applicable within the context of this Addendum analysis.

Summary

As with the Original Project, the Modified Project would result in less-than-significant impacts related to Tribal Cultural Resources. No changed or new information has been identified to indicate that any potential Tribal Cultural Resources impacts resulting from the Modified Project would be substantively greater than or different from those that would result from development under the Original Project.

3.4.3.18 Utilities/Service Systems

The Certified EIR substantiates that the Original Project would result in less-than significant impacts related to utilities and service systems.

All utilities/service systems are available to the subject site. Neither the Original Project or the Modified Project would require substantive extensions of utilities and service systems, the construction of which could cause significant environmental effects.

Neither the Original Project or the Modified Project would generate wastewater exceeding wastewater treatment requirements of the applicable Regional Water Quality Control Board.

Neither the Original Project or the Modified Project would require new or expanded water treatment or wastewater treatment facilities, the construction of which could cause significant environmental effects.

Neither the Original Project or the Modified Project would require new or expanded stormwater conveyance systems, the construction of which could cause significant environmental effects.

Neither the Original Project or the Modified Project would adversely affect water supply availability.

Neither the Original Project or the Modified Project would generate wastewater exceeding available treatment capacities.

Neither the Original Project or the Modified Project would generate solid waste exceeding available landfill capacities, or that would conflict with federal, state, and local statutes and regulations related to solid waste.

Summary

As with the Original Project, the Modified Project would result in less-than-significant related to utilities/service systems. No changed or new information has been identified to indicate that any potential utilities/service systems impacts resulting from the Modified Project would be substantively greater than or different from those that would result from development under the Original Project.

3.4.3.19 Mandatory Findings of Significance

The Certified EIR substantiates that with incorporation of mitigation, the Original Project would not degrade the quality of the environment; would not have impacts that are individually limited, but cumulatively considerable; and would not have environmental effects which would cause substantial adverse effects on human beings, either directly or indirectly.

The Modified Project does not propose or require uses or activities that would substantively change any of the conclusions of the Certified EIR. Where applicable, mitigation proposed in the Certified EIR has been carried forward in this Addendum. Supplemental City Conditions of Approval may be incorporated at the discretion of the Lead Agency.

No new or substantially increased environmental impacts would occur under the Modified Project and no substantive revisions to the Certified EIR are required.

4.0 Determination

4.0 DETERMINATION

As supported by the analysis presented in this Addendum, the potential environmental effects of the development allowed by the Modified Project, and associated required discretionary actions, have been adequately addressed in the Certified EIR. This Addendum provides minor technical changes to the Certified EIR analysis. As such, the development of any further information and environmental analysis is not warranted. Pursuant to the requirements of *CEQA Guidelines* Section 15162 and 15164, the following determinations are made.

Major Revisions to the Certified EIR Not Required

Based on the preceding analysis and information, there is no evidence that major changes to the Certified EIR are required. Comparison of the Original Project with the Modified Project described in this Addendum indicates that there would be no new significant or more severe environmental impacts, and that the development of the Modified Project described herein would essentially have the same impacts as those described in the Certified EIR.

No Substantial Change in Circumstances Requiring Major Revisions to the Certified EIR No information exists in the record, or is otherwise available that indicates that there are substantial changes in circumstances that would require major changes to the Certified EIR.

No New Information Showing Greater Significant Effects than Identified in the Certified EIR

This Addendum has considered all available relevant information to determine whether there is new information, which was not available at the time the Certified EIR was certified, that may indicate that a new significant effect may occur that was not reported in the Certified EIR. As supported by the analysis presented in this Addendum, there is no substantial new information that was not available at the time the EIR for the Original Project was certified, indicating that there will be a new, significant impact requiring major revisions of the Certified EIR.

No New Information Showing Ability to Reduce Significant Effects Identified in the Certified EIR

The Addendum analysis substantiates that there is no new information showing ability to reduce significant effects identified in the Certified EIR. The continued implementation of all applicable Certified EIR mitigation measures, and any modifications to those measures identified herein, would reduce the Modified Project's potentially significant impacts to levels that are less-than-significant.

Summary

The analysis presented in this document substantiates that the analysis presented in the Certified EIR is sufficient to satisfy CEQA requirements for the proposed Modified Project. That is, with incorporation of mitigation, implementation of the Modified Project described and evaluated herein will not result in any significant new, different, additional, or substantially increased environmental impacts than were previously considered and addressed in the Certified EIR. As such, environmental assessment of the Modified Project does not require any major revision of the Certified EIR; nor would the Modified Project result in conditions that would require preparation of further environmental analysis.

5.0 Mitigation Summary

5.0 MITIGATION SUMMARY

5.1 OVERVIEW

The following Table 5.1-1, *Mitigation and Implementation Summary Matrix*, comprehensively presents mitigation measures incorporated in the Pomona Hyatt Place Hotel Project EIR, and mitigation measures that would be required of the Modified Project described herein.

The "Certified EIR Mitigation Measures" column lists those measures that were required of the Original Project and presented in the Certified EIR. Certified EIR Mitigation Measures that are no longer required are indicated by strikeout font. The "Remarks" column identifies status and applicability of these Mitigation Measures. Mitigation Measures that would be required of the Modified Project are also presented. In all instances, the Modified Project Mitigation Measures replicate those identified in the Certified EIR.

At the discretion of the City Planning Director, any of the mitigation measures identified at Table 5.1-1 may be modified to respond to conditions and context as they may apply to development proposed by the Modified Project. Any such modifications shall not result in any new significant environmental impacts; rather, modifications would ensure compliance and consistency with current City goals, policies, regulations, and development programs/plans.

| Table 5.1-1 | | | | | |
|---|---|--|--|--|--|
| Certified EIR Mitigation Measures | ion and Implementation Summ Remarks | Modified Project Mitigation Measures/ Conditions of Approval | | | |
| Transportation/Traffic | | | | | |
| 4.2.1 Prior to issuance of the first certificate of occupancy, the Project Applicant shall extend the westbound left turn pocket at Rancho Camino Drive at Rio Rancho Road to accommodate a minimum 260 feet of vehicle stacking. Signal timing at Rancho Camino Drive at Rio Rancho Road shall be modified accordingly as required by the City of Pomona. | Applicable to Modified Project; incorporated in this Addendum as Mitigation Measure TR-1. | TR-1 Prior to issuance of the first certificate of occupancy the Project Applicant shall extend the westbound left turn pocket at Rancho Camino Drive at Rio Rancho Road to accommodate a minimum 260 feet of vehicle stacking Signal timing at Rancho Camino Drive at Rio Rancho Road shall be modified accordingly as required by the City of Pomona. | | | |
| Air Quality | <u>I</u> | <u> </u> | | | |
| 4.3.1 The following requirements shall be incorporated into Project plans and specifications in order to ensure implementation of SCAQMD Rule 403 and limit fugitive dust emissions: • All clearing, grading, earth-moving, or excavation activities shall cease when winds exceed 25 miles per hour; • The contractor shall ensure that all disturbed unpaved roads and disturbed areas within the Project site are watered at least three (3) times daily during dry weather. Watering, with complete coverage of disturbed areas, shall occur at least three times a day, preferably in the mid-morning, afternoon, and after work is done for the day; and • The contractor shall ensure that traffic speeds on unpaved roads and Project site areas are limited to 15 miles per hour or less. | Applicable to Modified Project; incorporated in this Addendum as Mitigation Measure AQ-1. | AQ-1 The following requirements shall be incorporated into Project plans and specifications in order to ensure implementation of SCAQMD Rule 403 and limit fugitive dust emissions: • All clearing, grading, earth-moving, or excavation activities shall cease when winds exceed 25 miles per hour; • The contractor shall ensure that all disturbed unpaved roads and disturbed areas within the Project site are watered at least three (3) times daily during dry weather. Watering, with complete coverage of disturbed areas, shall occur at least three times a day, preferably in the mid-morning, afternoon, and after work is done for the day; and • The contractor shall ensure that traffic speeds on unpaved roads and Project site areas are limited to 15 miles per hour or less. | | | |

| Table 5.1-1 | | | | | |
|---|---|---|--|--|--|
| Certified EIR Mitigation Measures | ion and Implementation Summ Remarks | ary Matrix Modified Project Mitigation Measures/ Conditions of Approval | | | |
| 4.3.2 Only "Zero-Volatile Organic Compounds" paints (no more than 150 grams/liter of VOC) and/or High Pressure Low Volume (HPLV) applications consistent with South Coast Air Quality Management District Rule 1113 shall be used. | Applicable to Modified Project; incorporated in this Addendum as Mitigation Measure AQ-2. | AQ-2 Only "Zero-Volatile Organic Compounds" paints (no more than 150 grams/liter of VOC) and/or High Pressure Low Volume (HPLV) applications consistent with South Coast Air Quality Management District Rule 1113 shall be used. | | | |
| Noise | | | | | |
| 4.5.1 Prior to approval of grading plans and/or issuance of building permits, plans shall include a note indicating that noise-generating Project construction activities shall only occur between the hours of 7:00 a.m. to 8:00 p.m. on weekdays and Saturdays, with no activity allowed on Sundays and holidays. The Project construction supervisor shall ensure compliance with the note and the City shall conduct periodic inspection at its discretion. | Applicable to Modified Project; incorporated in this Addendum as Mitigation Measure N-1. | N-1 Prior to approval of grading plans and/or issuance of building permits, plans shall include a note indicating that noise-generating Project construction activities shall only occur between the hours of 7:00 a.m. to 8:00 p.m. or weekdays and Saturdays, with no activity allowed or Sundays and holidays. The Project construction supervisor shall ensure compliance with the note and the City shall conduct periodic inspection at its discretion. | | | |
| 4.5.2 During all Project site construction, the construction contractors shall equip all construction equipment, fixed or mobile, with properly operating and maintained mufflers, consistent with manufacturers' standards. The construction contractor shall place all stationary construction equipment so that emitted noise is directed away from the noise sensitive receptors nearest the Project site. | Applicable to Modified Project; incorporated in this Addendum as Mitigation Measure N-2. | N-2 During all Project site construction, the construction contractors shall equip all construction equipment, fixed of mobile, with properly operating and maintained mufflers consistent with manufacturers' standards. The construction contractor shall place all stationary construction equipment so that emitted noise is directed away from the noise sensitive receptors nearest the Project site. | | | |
| 4.5.3 The construction contractor shall locate equipment staging in areas that will create the greatest distance between construction-related noise sources and noise-sensitive receivers nearest the Project site during all Project construction. | Applicable to Modified Project; incorporated in this Addendum as Mitigation Measure N-3. | N-3 The construction contractor shall locate equipmen staging in areas that will create the greatest distance between construction-related noise sources and noise sensitive receivers nearest the Project site during all Project construction. | | | |

| Table 5.1-1 | | | | | |
|--|---|---|--|--|--|
| Certified EIR Mitigation Measures | ion and Implementation Summ Remarks | Modified Project Mitigation Measures/ Conditions of Approval | | | |
| 4.5.4 The construction contractor shall limit haul truck deliveries to the same hours specified for construction equipment (between the hours of 7:00 a.m. to 8:00 p.m. on weekdays and Saturdays, with no activity allowed on Sundays and holidays). The Project Applicant shall prepare a haul route exhibit to design delivery routes to minimize the exposure of sensitive land uses or residential dwellings to delivery truck-related noise. | Applicable to Modified Project; incorporated in this Addendum as Mitigation Measure N-4. | N-4 The construction contractor shall limit haul truck deliveries to the same hours specified for construction equipment (between the hours of 7:00 a.m. to 8:00 p.m. on weekdays and Saturdays, with no activity allowed on Sundays and holidays). The Project Applicant shall prepare a haul route exhibit to design delivery routes to minimize the exposure of sensitive land uses or residential dwellings to delivery truck-related noise. | | | |
| 4.5.5 In order to meet the City of Pomona 45 dBA CNEL interior noise standards, and 2014 California Green Building Standards Code requirements, the final Project architectural designs should incorporate the following (or equivalent) noise attenuation features: Windows: All windows and sliding glass doors shall be well fitted, well weather-stripped assemblies and shall have a minimum sound transmission class (STC) rating of 40. Doors: All exterior hinged and sliding glass doors to habitable rooms that are directly exposed to transportation noise and are facing the source of the noise shall be a door and edge seal assembly with a minimum STC rating of 27. Roof: Roof sheathing of wood construction shall be well fitted or caulked plywood of at least one-half inch thick. Ceilings shall be well fitted, well-sealed gypsum board of at least one-half inch thick. Insulation with at least a rating of R-19 shall be used in the attic space. | MM 4.5.5 is not required to reduce environmental effects of the Original Project on the environment. This measure would however ensure that the Original Project occupancies would comply with interior noise standards established by the City. It is recommended that MM 4.5.5 be restated as a Condition of Approval for the Modified Project. | N-5 In order to meet the City of Pomona 45 dBA CNEL interior noise standards, and 2014 California Green Building Standards Code requirements, the final Project architectural designs should incorporate the following (or equivalent) noise attenuation features: • Windows: All windows and sliding glass doors shall be well fitted, well weather-stripped assemblies and shall have a minimum sound transmission class (STC) rating of 40. • Doors: All exterior hinged and sliding glass doors to habitable rooms that are directly exposed to transportation noise and are facing the source of the noise shall be a door and edge seal assembly with a minimum STC rating of 27. • Roof: Roof sheathing of wood construction shall be well fitted or caulked plywood of at least one-half inch thick. Ceilings shall be well fitted, well-sealed gypsum board of at least one-half inch thick. Insulation with at least a rating of R-19 shall be used in the attic space. • Ventilation: Arrangements for any habitable room shall be such that any exterior door or window can be kept | | | |

| Table 5.1-1 Mitigation and Implementation Summary Matrix | | | | | |
|---|---------|--|--|--|--|
| Certified EIR Mitigation Measures | Remarks | Modified Project Mitigation Measures/ | | | |
| | | Conditions of Approval | | | |
| Ventilation: Arrangements for any habitable room | | system (e.g., air conditioning) shall be provided which | | | |
| shall be such that any exterior door or window can be | | satisfies the requirements of the Uniform Building Code. | | | |
| kept closed when the room is in use. A forced air | | | | | |
| circulation system (e.g., air conditioning) shall be | | | | | |
| provided which satisfies the requirements of the Uniform | | | | | |
| Building Code. | | | | | |

Sources: Certified EIR; Applied Planning, Inc.

ENVIRONMENTAL CHECKLIST

Addendum to the Pomona Hyatt Hotel Project Environmental Impact Report (SCH No. 2016011079)

1. **AESTHETICS**

| | | Substantial Change in Project Requiring Major EIR | Substantial Change in Circumstances Requiring Major EIR | New Information Showing Greater Significant Effects than | New Information Showing Ability to Reduce but not Eliminate Significant Effects in | No Changes or New Information Requiring Preparation of | No |
|----|---|---|---|--|--|--|--------|
| Wo | ould the project: | Revisions | Revisions | Previous EIR | Previous EIR | an EIR | Impact |
| a) | Have a substantial adverse effect on a scenic vista? | | | | | X | |
| b) | Substantially damage visible scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway? | | | | | Х | |
| c) | Substantially degrade the existing visual character or quality of the site and its surroundings? | | | | | Х | |
| d) | Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area? | | | | | Х | |

Substantiation:

a, b) No Changes or New Information Requiring Preparation of an EIR.

Certified EIR Conclusions: The Certified EIR Initial Study (Certified EIR IS) substantiates that the potential for the Original Project to have a substantial adverse effect on a scenic vista; or substantially damage visible scenic resources would be less-than-significant.

Potential impacts of the Original Project relative to scenic vistas and other scenic resources are evaluated in the Certified EIR IS and are substantiated to be less-than-significant. As stated within the Certified EIR IS, the subject site is not located within a scenic vista, nor would the Original Project otherwise affect a scenic vista. No historic buildings currently exist on or adjacent to the Project site; and development of the Project

would not otherwise affect historic resources. Accordingly, the Certified EIR IS concluded that the potential for the Original Project to have a substantial adverse effect on a scenic vista; or substantially damage scenic resources, including, but not limited to trees, rocks, outcroppings, and historic buildings within a state scenic highway would be less-than-significant and impacts in this regard would be less-than-significant (Certified EIR IS, p. 3-6).

Certified EIR Mitigation Measures: None.

Modified Project: The Modified Project site comprises the same property evaluated in the Certified EIR IS. As with the Original Project, the Modified Project does not propose elements that would affect scenic vistas or scenic resources within a designated scenic highway. No historic buildings currently exist on or adjacent to the Modified Project site; and development of the Modified Project would not otherwise affect historic resources. Under the Modified Project, impacts to scenic vistas and scenic resources would be the same as those identified for the Original Project and would be less-than-significant.

Modified Project Mitigation Measures: None.

c) No Changes or New Information Requiring Preparation of an EIR.

Certified EIR Conclusions: The Certified EIR IS substantiates that the potential for the Original Project to substantially degrade the existing visual character or quality of the site and its surroundings would be less-than-significant.

The Certified EIR IS acknowledged that construction proposed by the Original Project would represent a visual improvement of the currently vacant disturbed former landfill site; would complement architectural styles evidenced elsewhere in the Pomona Ranch Plaza (Plaza); would enhance the visual perception of the Plaza in total; and would reinforce the subject site and the Plaza in total as a destination place in the City. Additionally, the Original Project building forms and Project land use density/intensity would comport with Transect Zone T6-B Typical Development Types and Density/Intensity guidelines articulated in the City of Pomona General Plan. The Original

Project would further comply with any enhanced design and architectural solutions that may be specified by City staff and incorporated as Project Conditions of Approval (COA). On this basis, the Certified EIR IS concluded that the potential for the Original Project to substantially degrade the existing visual character and quality of the site and its surroundings would be less-than-significant (Certified EIR IS, p. 3-6).

Certified EIR Mitigation Measures: None.

Modified Project: As with the Original Project, the Modified Project would represent a visual improvement of the currently vacant disturbed former landfill site; would complement architectural styles evidenced elsewhere in the Plaza; would enhance the visual perception of the Plaza in total; and would reinforce the subject site and the Plaza in total as a destination place in the City. The Modified Project building forms and Project land use density/intensity would comport with Transect Zone T6-B Typical Development Types and Density/Intensity guidelines articulated in the City of Pomona General Plan. The Modified Project would further comply with any enhanced design and architectural solutions that may be specified by City staff and incorporated as Modified Project Conditions of Approval (COA). This would ensure that the Modified Project would not substantially degrade the existing visual character or quality of the site and its surroundings.

On this basis, as with the Original Project, the potential for the Modified Project to substantially degrade the existing visual character or quality of the area would be the same as identified within the Certified EIR and would be less-than-significant.

Modified Project Mitigation Measures: None.

d) No Changes or New Information Requiring Preparation of an EIR.

Certified EIR Conclusions: The Certified EIR IS substantiates that the potential for the Original Project to create a new source of substantial light or glare which would adversely affect day or nighttime views would be less-than-significant.

The Certified EIR IS notes that the Original Project would establish new sources of lighting, which may include new building-mounted, wall-mounted, pole-mounted and surface fixtures. The Original Project would also provide new illuminated exterior signage. The Certified EIR IS notes further that the vicinity is currently developed with urban uses, and that typical commercial lighting proposed by the Original Project would not substantively alter area ambient lighting conditions. Pursuant to City of Pomona Municipal Code Section 503, Property Development Standards et al., new sources of light proposed by the Original Project would be shielded and directed away from off-site land uses thereby avoiding or minimizing potential light overspill. Final design, configuration, and orientation of the Original Project lighting features and fixtures would be subject to City review and approval, acting to ensure that lighting would be compatible with, and would complement, architectural and site designs; and further that lighting would be compatible with and would not adversely affect off-site land uses. Designs for the Original Project buildings would incorporate non-glare surface materials acting to ensure that buildings would not create or result in substantive sources of reflected light and glare. On this basis, the Certified EIR IS concluded that the potential for the Original Project to create a new source of substantial light or glare, which would adversely affect the day or nighttime views in the area would be less-than-significant (Certified EIR IS, p. 3-7).

Certified EIR Mitigation Measures: None.

Modified Project: The Modified Project would establish new sources of lighting, which may include new building-mounted, wall-mounted, pole-mounted and surface fixtures. The Modified Project would also provide new illuminated exterior signage. Ambient urban lighting conditions noted in the Certified EIR IS remain substantively unchanged and typical commercial lighting implemented under the Modified Project would not substantively alter ambient conditions. Pursuant to City of Pomona Municipal Code Section 503, *Property Development Standards* et al., new sources of light proposed by the Modified Project would be shielded and directed away from off-site land uses thereby avoiding or minimizing potential light overspill. Final design, configuration, and orientation of the Modified Project lighting features and fixtures would be subject to City review and approval, acting to ensure that lighting would be compatible with, and would

complement, architectural and site designs; and further that lighting would be compatible with and would not adversely affect off-site land uses. Designs for the Modified Project buildings would incorporate non-glare surface materials acting to ensure that buildings would not create or result in substantive sources of reflected light and glare. On this basis, the proposed Modified Project light/glare impacts would be the same as those identified within the Certified EIR and would be less-than-significant.

Modified Project Mitigation Measures: None.

Summary

As substantiated by the preceding discussions, no new or substantially increased aesthetic impacts would occur as a result of the Modified Project. Accordingly, there are determined to be no changes or new information associated with the Modified Project requiring preparation of an EIR.

Sources: Pomona General Plan; Pomona Municipal Code; Phillips Ranch Specific Plan; *Pomona Hyatt Hotel Project Environmental Impact Report,* SCH No. 2016011079 (Certified EIR); Preliminary Plans for Pomona Hyatt Hotel Project, Revised March 2018.

2. AGRICULTURE AND FOREST RESOURCES

| W a) | Yould the project: Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use? | Substantial Change in Project Requiring Major EIR Revisions | Substantial Change in Circumstances Requiring Major EIR Revisions | New Information Showing Greater Significant Effects than Previous EIR | New Information Showing Ability to Reduce but not Eliminate Significant Effects in Previous EIR | No Changes or New Information Requiring Preparation of an EIR | No Impact X |
|------|--|--|--|---|---|--|-------------------|
| b) | Conflict with existing zoning for agricultural use, or a Williamson Act contract? | | | | | | Х |
| c) | Conflict with existing zoning for, or cause rezoning of, forest land (as | | | | | | Х |

| Would the project: | Substantial Change in Project Requiring Major EIR Revisions | Substantial Change in Circumstances Requiring Major EIR Revisions | New Information Showing Greater Significant Effects than Previous EIR | New Information Showing Ability to Reduce but not Eliminate Significant Effects in Previous EIR | No Changes or New Information Requiring Preparation of an EIR | No Impact |
|--|--|--|---|---|--|--------------|
| defined in Public Resources Code | 110 1010110 | 110 110110 | 1 Tevious Effe | TTC VIOUS EIR | urent | Impact |
| section 1220(g)), timberland (as | | | | | | |
| defined by Public Resources Code | | | | | | |
| section 4526), or timberland zoned | | | | | | |
| Timberland Production (as defined by | | | | | | |
| Government Code section 51104(g))? | | | | | | |
| d) Result in the loss of forest land or | | | | | | |
| conversion of forest land to non-forest | | | | | | X |
| use? | | | | | | |
| e) Involve other changes in the existing | | | | | | |
| environment which, due to their | | | | | | |
| location or nature, could result in | | | | | | χ |
| conversion of Farmland to non- | | | | | | , , |
| agricultural use, or conversion of | | | | | | |
| forest land to non-forest use? | | | | | | |

a - e) No Impact.

Certified EIR Conclusions: The Certified EIR IS substantiates that the Original Project would have no impact on farmlands, Williamson Act properties, timberlands, or other agricultural and/or forest resources.

The Certified EIR IS recognized that there are no agricultural uses within the City of Pomona. Further, development activities associated with the Original Project would not affect any agriculturally-zoned properties, forest lands, or any lands where a Williamson Act contract is currently in place. Prime Farmlands, Unique Farmlands, and Farmlands of Statewide Importance do not exist within the subject site.

On this basis, the Certified EIR IS concluded that the Original Project would have no impact regarding conversion of Farmlands; conflicts with agricultural zoning; conflicts with zoning of forest lands; loss or conversion of forest lands; or other changes that could

result in conversion of Farmland to non-agricultural use, or conversion of forest land to non-forest use (Certified EIR IS, pp. 3-9, 3-10).

Certified EIR Mitigation Measures: None.

Modified Project: No changed or new information has been identified to indicate that any potential agriculture and/or forest resources impacts resulting from the Modified Project would be different from those previously determined. That is, no portions of the subject site are agriculturally-zoned, nor are they designated as forest land, forested or proposed for forestation. The site is not subject to a Williamson Act contract.

Modified Project Mitigation Measures: None.

Summary

As substantiated by the preceding discussions, no new or substantially increased agricultural resources impacts would occur as a result of the Modified Project. Accordingly, there are determined to be no changes or new information associated with the Modified Project requiring preparation of an EIR.

Sources: Pomona General Plan; Phillips Ranch Specific Plan; *Pomona Hyatt Hotel Project Environmental Impact Report*, SCH No. 2016011079 (Certified EIR); Preliminary Plans for Pomona Hyatt Hotel Project, Revised March 2018.

3. AIR QUALITY

| | | | | New | | |
|--------------------------------------|-------------|---------------|--------------|---------------|----------------|--------|
| | | | | Information | | |
| | | | New | Showing | | |
| | Substantial | Substantial | Information | Ability to | No Changes | |
| | Change in | Change in | Showing | Reduce but | or New | |
| | Project | Circumstances | Greater | not Eliminate | Information | |
| | Requiring | Requiring | Significant | Significant | Requiring | |
| | Major EIR | Major EIR | Effects than | Effects in | Preparation of | No |
| Would the project: | Revisions | Revisions | Previous EIR | Previous EIR | an EIR | Impact |
| a) Conflict with or obstruct | | | | | | |
| implementation of the applicable air | | | | | Χ | |
| quality plan? | | | | | | |

| W | ould the project: | Substantial Change in Project Requiring Major EIR Revisions | Substantial Change in Circumstances Requiring Major EIR Revisions | New Information Showing Greater Significant Effects than Previous EIR | New Information Showing Ability to Reduce but not Eliminate Significant Effects in Previous EIR | No Changes or New Information Requiring Preparation of an EIR | No Impact |
|----|--|--|--|---|---|--|--------------|
| b) | Violate any air quality standard or contribute substantially to an existing or projected air quality violation? | | | | | Х | |
| c) | Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)? | | | | | Х | |
| d) | Expose sensitive receptors to substantial pollutant concentrations? | | | | | X | |
| e) | Create objectionable odors affecting a substantial number of people? | | | | | Х | |

a) No Changes or New Information Requiring Preparation of an EIR.

Certified EIR Conclusions: The Certified EIR substantiates that the potential for the Original Project to conflict with or obstruct implementation of the applicable air quality plan would be less-than-significant.

The Original Project would not result in increased frequency or severity of National Ambient Air Quality Standards/California Ambient Air Quality Standards (NAAQS/CAAQS) air quality violations. Further, the Original Project would be consistent with development anticipated under the City General Plan and reflected in the South Coast Air Quality Management District (SCAQMD) Air Quality Management Plan (AQMP) assumptions.

On this basis, the Certified EIR concluded that the potential for the Original Project to conflict with or obstruct implementation of the applicable air quality plan would be less-than-significant (Certified EIR, pp. 4.3-26-4.3-29).

Certified EIR Mitigation Measures: None.

Modified Project: As discussed subsequently herein at Checklist Item 3 b., the Modified Project would not result in increased frequency or severity of NAAQS/CAAQS air quality violations. Further, the Modified Project would be consistent with development anticipated under the City General Plan (see Checklist Item 10., Land Use and Planning) and reflected in the SCAQMD AQMP assumptions. As with the Original Project, the potential for the Modified Project to violate any air quality standard or contribute substantially to an existing or projected air quality violation would be less-than-significant.

Modified Project Mitigation Measures: None.

b) No Changes or New Information Requiring Preparation of an EIR.

Certified EIR Conclusions: The Certified EIR substantiates the following conclusions:

 With incorporation of mitigation, the potential for the Original Project construction-source emissions to violate any air quality standard or contribute substantially to an existing or projected air quality violation would be less-thansignificant.

• The potential for the Original Project operational-source emissions to violate any air quality standard or contribute substantially to an existing or projected air quality violation would be less-than-significant (Certified EIR, pp. 4.3-29 – 4.3-44).

Certified EIR Mitigation Measures:

- 4.3.1 The following requirements shall be incorporated into Project plans and specifications in order to ensure implementation of SCAQMD Rule 403 and limit fugitive dust emissions:
- All clearing, grading, earth-moving, or excavation activities shall cease when winds exceed 25 miles per hour;
- The contractor shall ensure that all disturbed unpaved roads and disturbed areas within the Project site are watered at least three (3) times daily during dry weather. Watering, with complete coverage of disturbed areas, shall occur at least three times a day, preferably in the mid-morning, afternoon, and after work is done for the day; and
- The contractor shall ensure that traffic speeds on unpaved roads and Project site areas are limited to 15 miles per hour or less.
- 4.3.2 Only "Zero-Volatile Organic Compounds" paints (no more than 150 grams/liter of VOC) and/or High Pressure Low Volume (HPLV) applications consistent with South Coast Air Quality Management District Rule 1113 shall be used.

Modified Project:

Construction-source Emissions Impacts

Regional and localized construction emissions impacts resulting from the Modified Project would be comparable to those resulting from the Original Project. That is, the types of construction equipment employed and the peak daily construction-source emissions generated would be substantively the same under both the Original Project and the Modified Project.

The Modified Project would incorporate applicable Certified EIR mitigation measures, reducing construction-source emissions to levels that would not exceed applicable SCAQMD regional thresholds. Mitigated construction-source emissions resulting from the Original Project and the Modified Project are presented at Table 3-1.

Table 3-1
Original Project and Modified Project
Maximum Daily Construction-Source Air Pollutant Emissions Summary
With Mitigation (pounds per day)

| Year | Pollutant | | | | | | |
|---------------------------|-----------|-------|-------|-----------------|------------------|-------------------|--|
| leai | VOC | NOx | СО | SO _x | PM ₁₀ | PM _{2.5} | |
| 2017 | 8.03 | 85.57 | 73.55 | 0.08 | 11.30 | 6.99 | |
| 2018 | 43.56 | 33.06 | 40.96 | 0.08 | 4.81 | 2.45 | |
| Maximum Daily Emissions | 43.56 | 85.57 | 73.55 | 0.08 | 11.30 | 6.99 | |
| SCAQMD Regional Threshold | 75 | 100 | 550 | 150 | 150 | 55 | |
| Threshold Exceeded? | No | No | No | No | No | No | |

Source: Pomona Hyatt Place + Hyatt House Air Quality Impact Analysis, City of Pomona (Urban Crossroads, Inc.) February 8, 2016.

Under both the Original Project and the Modified Project, localized construction-source emissions would not exceed applicable SCAQMD Localized Significance Thresholds (LSTs) and would be less-than-significant as presented at Table 3-2.

Table 3-2
Original Project and Modified Project
Construction-Source LST Emissions Impacts Summary

| On Cita Cita Burnantian Emission | Emissions (pounds per day) | | | | | | |
|------------------------------------|----------------------------|-------|------------------|-------------------|--|--|--|
| On-Site Site Preparation Emissions | NOx | СО | PM ₁₀ | PM _{2.5} | | | |
| Maximum Daily Emissions | 75.92 | 40.81 | 11.10 | 6.93 | | | |
| SCAQMD Localized Threshold | 193 | 1,226 | 101 | 43 | | | |
| Threshold Exceeded? | No | No | No | No | | | |
| On Site Creding Emissions | Emissions (pounds per day) | | | | | | |
| On-Site Grading Emissions | NOx | СО | PM ₁₀ | PM _{2.5} | | | |
| Maximum Daily Emissions | 81.68 | 47.51 | 7.41 | 4.73 | | | |
| SCAQMD Localized Threshold | 207 | 1,339 | 104 | 45 | | | |
| Threshold Exceeded? | No | No | No | No | | | |

Source: Pomona Hyatt Place + Hyatt House Air Quality Impact Analysis, City of Pomona, California (Urban Crossroads, Inc.) February 8, 2016.

Operational-Source Emissions – Regional Impacts

Unmitigated regional operational-source emissions that would be generated by the Original Project and the Modified Project are compared at Table 3-3. As indicated at Table 3-3, NOx and PM₁₀/PM_{2.5} operational-source emissions generated by the Modified Project would be greater than would result from the Original Project; while other criteria pollutant emissions (VOC, CO, and SOx emissions) would be substantively equal, or would be reduced. In no instance would the Modified Project operational-source air pollutant emissions exceed applicable SCAQMD thresholds. As with the Original Project, the Modified Project operational-source emissions impacts would be less-than-significant.

Table 3-3

Comparison of Original Project and Modified Project

Maximum Daily Operational-Source Regional Air Pollutant Emissions

Without Mitigation (pounds per day)

| | without wingation (pounds per day) | | | | | | | | | | |
|--------------------------------------|------------------------------------|--------------|--------|----------|------------------|-------------------|--|--|--|--|--|
| Land Use/Emissions Source | | | Po | llutants | | | | | | | |
| Land Ose/Emissions Source | VOC | NOx | CO | SOx | PM ₁₀ | PM _{2.5} | | | | | |
| | ORIGI | NAL PROJ | ECT | | | | | | | | |
| | Sum | mer Scenari | io | | | | | | | | |
| Area Source | 13.30 | 7.20E-04 | 0.08 | 1.00E-05 | 2.80E-04 | 2.80E-04 | | | | | |
| Energy Source | 0.20 | 1.86 | 1.56 | 0.01 | 0.14 | 0.14 | | | | | |
| Mobile Source | 9.76 | 25.51 | 104.33 | 0.27 | 18.25 | 5.13 | | | | | |
| Total Maximum Daily Emissions | 23.26 | 27.37 | 105.97 | 0.28 | 18.39 | 5.27 | | | | | |
| SCAQMD Regional Threshold | 55 | 55 | 550 | 150 | 150 | 55 | | | | | |
| Threshold Exceeded? | No | No | No | No | No | No | | | | | |
| | Wii | nter Scenari | o | | | | | | | | |
| Area-Source | 13.30 | 7.20E-04 | 0.08 | 1.00E-05 | 2.80E-04 | 2.80E-04 | | | | | |
| Energy-Source | 0.20 | 1.86 | 1.56 | 1.00E-02 | 0.14 | 0.14 | | | | | |
| Mobile-Source | 10.26 | 26.83 | 105.95 | 0.26 | 18.25 | 5.13 | | | | | |
| Total Maximum Daily Emissions | 23.76 | 28.69 | 107.59 | 0.27 | 18.39 | 5.27 | | | | | |
| SCAQMD Regional Threshold | 55 | 55 | 550 | 150 | 150 | 55 | | | | | |
| Threshold Exceeded? | No | No | No | No | No | No | | | | | |
| | MODI | FIED PROJ | ECT | | | | | | | | |
| | Sum | mer Scenari | io | | | | | | | | |
| Area-Source | 10.48 | 1.67 | 8.56 | 0.01 | 0.17 | 0.17 | | | | | |

Table 3-3

Comparison of Original Project and Modified Project

Maximum Daily Operational-Source Regional Air Pollutant Emissions

Without Mitigation (pounds per day)

| | <u> </u> | | | | | |
|--------------------------------------|----------|--------------|-------|----------|------------------|-------------------|
| Land Hay (Francisc) and Comme | | | Po | llutants | | |
| Land Use/Emissions Source | VOC | NOx | СО | SOx | PM ₁₀ | PM _{2.5} |
| Energy-Source | 0.28 | 2.56 | 2.01 | 0.02 | 0.20 | 0.20 |
| Mobile-Source | 6.73 | 29.71 | 79.36 | 0.25 | 19.01 | 5.25 |
| Total Maximum Daily Emissions | 17.49 | 33.93 | 89.94 | 0.27 | 19.37 | 5.62 |
| SCAQMD Regional Threshold | 75 | 100 | 550 | 150 | 150 | 55 |
| Threshold Exceeded? | No | No | No | No | No | No |
| | Wii | nter Scenari | 0 | | | |
| Area-Source | 10.48 | 1.67 | 8.56 | 0.01 | 0.17 | 0.17 |
| Energy-Source | 0.28 | 2.56 | 2.01 | 0.01 | 0.20 | 0.20 |
| Mobile-Source | 6.54 | 30.33 | 79.60 | 0.24 | 19.01 | 5.26 |
| Total Maximum Daily Emissions | 17.30 | 34.56 | 87.17 | 0.26 | 19.37 | 5.62 |
| SCAQMD Regional Threshold | 75 | 100 | 550 | 150 | 150 | 55 |
| Threshold Exceeded? | No | No | No | No | No | No |

Sources: Original Project emissions estimates from: *Pomona Hyatt Place + Hyatt House Air Quality Impact Analysis, City of Pomona, California* (Urban Crossroads, Inc.) February 8, 2016; Modified Project emissions estimates from: *Pomona Hyatt Hotel Focused Air Quality and Greenhouse Gas Memorandum* (Urban Crossroads, Inc.) May 11, 2018.

Operational-Source Emissions – Localized Impacts

Area Sources

Assuming roughly proportional effects in localized emissions, the approximately 20 percent increase in regional operational-source NOx emissions; approximately 5 percent increase regional in PM₁₀/PM_{2.5} emissions; and approximately 17 percent reduction in regional CO emissions resulting from the Modified Project (see Table 3-3) would not substantively affect the Modified Project localized emissions impacts when compared to the Original Project. That is, as indicated at Table 3-4, under the Original Project and the Modified Project, localized emissions would be order(s) of magnitude below applicable SCAQMD Localized Significance Thresholds (LSTs). Under both the Original Project and the Modified Project, localized operational-source emissions impacts would be less-than-significant.

Table 3-4
Comparison of Original Project and Modified Project
Operational-Source Localized Air Pollutant Emissions (pounds per day)

| | | Pollı | ıtant | | | | | | |
|----------------------------|-----------------|-------|------------------|-------------------|--|--|--|--|--|
| | NOx | СО | PM ₁₀ | PM _{2.5} | | | | | |
| Original Project | | | | | | | | | |
| Maximum Daily Emissions | 3.20 | 6.94 | 1.05 | 3.97E-01 | | | | | |
| SCAQMD Localized Threshold | 193 | 1,226 | 25 | 11 | | | | | |
| Threshold Exceeded? | No | No | No | No | | | | | |
| M | odified Project | | | | | | | | |
| Maximum Daily Emissions | 3.74 | 5.76 | 1.10 | 4.17E-01 | | | | | |
| SCAQMD Localized Threshold | 193 | 1,226 | 25 | 11 | | | | | |
| Threshold Exceeded? | No | No | No | No | | | | | |

Sources: Original Project emissions estimates from: *Pomona Hyatt Place + Hyatt House Air Quality Impact Analysis, City of Pomona, California* (Urban Crossroads, Inc.) February 8, 2016; Modified Project emissions estimates – Applied Planning, Inc.

CO Hotspots

The Original Project trip generation and related contributions to area roadway traffic volumes would not result in traffic conditions necessary to generate CO Hot Spots. That is, even under a conservative maximum impact scenario, the Original Project would result in a maximum 8-hour CO concentration of 3.0 parts per million (ppm) at the most traffic-congested location (Certified EIR p. 4.3-42). This is one-third the 8-hour 9.0 ppm threshold established by the National Ambient Air Quality Standards/California Ambient Air Quality Standards (NAAQS/CAAQS). The approximately 23 percent increase in ADT under the Modified Project (see Checklist Item 16. *Transportation/Traffic*) would not be sufficient to affect the Certified EIR "less-than-significant" conclusions regarding potential CO Hot Spots impacts. Under both the Original Project and the Modified Project, potential CO Hot Spots impacts would be less-than-significant.

Modified Project Mitigation Measures: Air quality mitigation measures from the Certified EIR are carried forward for the Modified Project, and are incorporated herein as Mitigation Measures AQ-1, AQ-2.

AQ-1 The following requirements shall be incorporated into Project plans and specifications in order to ensure implementation of SCAQMD Rule 403 and limit fugitive dust emissions:

- All clearing, grading, earth-moving, or excavation activities shall cease when winds exceed 25 miles per hour;
- The contractor shall ensure that all disturbed unpaved roads and disturbed areas within the Project site are watered at least three (3) times daily during dry weather. Watering, with complete coverage of disturbed areas, shall occur at least three times a day, preferably in the mid-morning, afternoon, and after work is done for the day; and
- The contractor shall ensure that traffic speeds on unpaved roads and Project site areas are limited to 15 miles per hour or less.

AQ-2 Only "Zero-Volatile Organic Compounds" paints (no more than 150 grams/liter of VOC) and/or High Pressure Low Volume (HPLV) applications consistent with South Coast Air Quality Management District Rule 1113 shall be used.

c) No Changes or New Information Requiring Preparation of an EIR.

Certified EIR Conclusions: The Certified EIR substantiates that the potential for the Original Project to 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 would be less-than-significant as mitigated.

The Certified EIR recognizes that the encompassing South Coast Air Basin (Basin) is designated as an extreme non-attainment area for ozone; a serious non-attainment area for PM₁₀; and a non-attainment area for PM_{2.5}. Germane to these regional non-attainment conditions, the Certified EIR air quality impact analyses substantiate that mitigated air pollutant impacts of the Original Project would not exceed NAAQS, CAAQS, SCAQMD Regional thresholds, or SCAQMD LSTs. Mitigated air pollutant emissions impacts of the Original Project would therefore be less-than-significant, and would not be cumulatively considerable.

On this basis, the Certified EIR concluded that, with incorporation of mitigation, the potential for the Original Project to result in a cumulatively considerable net increase of any criteria pollutant for which the region is non-attainment under an applicable federal or state ambient air quality standard would be less-than-significant (Certified EIR, p. 4.3-46).

Certified EIR Mitigation Measures:

See previous Mitigation Measures 4.3.1, 4.3.2.

Modified Project: As substantiated here, mitigated air pollutant impacts of the Modified Project would not be substantively greater than or different than those resulting from the Original Project. As with the Original Project, pollutant emissions generated by the Modified Project would not exceed NAAQS, CAAQS, SCAQMD Regional thresholds, or SCAQMD LSTs. Mitigated air pollutant emissions impacts of the Modified Project would therefore be less-than-significant, and would not be cumulatively considerable.

Based on the preceding, as with the Original Project, with incorporation of mitigation, the potential for the Modified Project to 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 would be less-than-significant.

Modified Project Mitigation Measures:

See previous Mitigation Measures AQ-1, AQ-2.

d) No Changes or New Information Requiring Preparation of an EIR.

Certified EIR Conclusions: As substantiated in the evaluation of the Original Project's localized air quality impacts (see Checklist Item 3. b above), operational-source area emissions would not exceed applicable SCAQMD LSTs. Nor would the Original Project create or result in localized CO hot spots.

On this basis, the Certified EIR concluded that the potential for the Original Project to expose sensitive receptors to substantial pollutant concentrations would be less-than-significant (Certified EIR, p. 4.3-44).

Modified Project: The discussions presented within this Section substantiate that emissions generated by the Modified Project that would not exceed applicable SCAQMD LSTs. Nor would the Modified Project create or result in localized CO hot spots.

On this basis, as with the Original Project, the potential for the Modified Project to expose sensitive receptors to substantial pollutant concentrations would be less-than-significant.

d) No Changes or New Information Requiring Preparation of an EIR.

Certified EIR Conclusions: The Certified EIR substantiates that potential for the Original Project to create objectionable odors affecting a substantial number of people would be less-than-significant.

The Certified EIR notes that land uses and activities generally associated with odor complaints include:

- Agricultural uses (livestock and farming)
- Wastewater treatment plants
- Food processing plants
- Chemical plants
- Composting operations
- Refineries
- Landfills
- Dairies
- Fiberglass molding facilities

The Original Project does not propose or require any of the above-listed uses. Other temporary, intermittent and transient odors may be generated by construction activities (e.g., equipment exhaust, and application of asphalt and architectural coatings).

Additionally, standard construction requirements would preclude or minimize potential odor impacts resulting from construction activities.

Any refuse generated by the Original Project would be stored in covered containers and removed at regular intervals in compliance with the City of Pomona's solid waste regulations, thereby precluding or minimizing odor impacts over the life of the development. All development proposals would also be required to comply with SCAQMD Rule 402. Rule 402 acts to control generation of, and exposure to, nuisance air pollutants including but not limited to odors.

Based on the preceding, the Certified EIR concluded that the potential for the Original Project to create objectionable odors affecting a substantial number of people would be less-than-significant (Certified EIR, p. 4.3-35).

Modified Project: The Modified Project does not propose any of the above-noted land uses typically associated with emitting objectionable odors. As with the Original Project, potential odor sources associated with the Modified Project may include construction equipment exhaust and the application of asphalt and architectural coatings during construction activities; and the temporary storage of typical solid waste (refuse) associated with development operations. Any construction-source odor emissions generated by the Modified Project would be temporary, short-term, and intermittent in nature and would cease upon completion of construction activities. Any refuse generated by the Modified Project operational activities would be stored in covered containers and removed at regular intervals in compliance with the City of Pomona's solid waste regulations. Any development within the subject site would also be required to comply with SCAQMD Rule 402, thereby minimizing potential odor nuisances.

Based on the preceding, as with the Original Project, the potential for the Modified Project to create objectionable odors affecting a substantial number of people would be less-than-significant.

Summary

As substantiated by the preceding discussions, no new or substantially increased air quality impacts would occur as a result of the Modified Project. Accordingly, there are determined to be no changes or new information associated with the Modified Project requiring preparation of an EIR.

Sources: City of Pomona General Plan; Pomona Hyatt Hotel Project Environmental Impact Report, SCH No. 2016011079 (Certified EIR); Pomona Hyatt Place + Hyatt House Air Quality Impact Analysis, City of Pomona, California (Urban Crossroads, Inc.) February 8, 2016; Pomona Hyatt Hotel Focused Air Quality and Greenhouse Gas Memorandum (Urban Crossroads, Inc.) May 11, 2018; SCAQMD Rule 402; Preliminary Plans for Pomona Hyatt Hotel Project, Revised March 2018.

4. BIOLOGICAL RESOURCES

| | | | | New | | |
|--|-------------|---------------|--------------|---------------|----------------|--------|
| | | | | Information | | |
| | | | New | Showing | | |
| | Substantial | Substantial | Information | Ability to | No Changes | |
| | Change in | Change in | Showing | Reduce but | or New | |
| | Project | Circumstances | Greater | not Eliminate | Information | |
| | Requiring | Requiring | Significant | Significant | Requiring | 3.7 |
| Would the project | Major EIR | Major EIR | Effects than | Effects in | Preparation of | No |
| Would the project: | Revisions | Revisions | Previous EIR | Previous EIR | an EIR | Impact |
| a) Have a substantial adverse effect, either | | | | | | |
| directly or through habitat modification, | | | | | | |
| on any species identified as a candidate, | | | | | | |
| sensitive, or special status species in | | | | | X | |
| local or regional plans, policies, or | | | | | ^ | |
| regulations, or by the California | | | | | | |
| Department of Fish and Game or U.S. | | | | | | |
| Fish and Wildlife Service? | | | | | | |
| b) Have a substantial adverse effect on any | | | | | | |
| riparian habitat or other sensitive | | | | | | |
| natural community identified in local or | | | | | | |
| regional plans, policies and regulations; | | | | | X | |
| or by the California Department of Fish | | | | | | |
| and Game or U.S. Fish and Wildlife | | | | | | |
| Service? | | | | | | |

| | Substantial Change in Project Requiring Major EIR | Substantial Change in Circumstances Requiring Major EIR | New Information Showing Greater Significant Effects than | New Information Showing Ability to Reduce but not Eliminate Significant Effects in | No Changes or New Information Requiring Preparation of | No |
|--|---|---|--|--|--|--------|
| Would the project: | Revisions | Revisions | Previous EIR | Previous EIR | an EIR | Impact |
| c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means? | | | | | х | |
| 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? | | | | | х | |
| e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? | | | | | Х | |
| 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? | | | | | Х | |

a – f) No Changes or New Information Requiring Preparation of an EIR.

Certified EIR Conclusions: The Certified EIR IS substantiates that the potential for Original Project to adversely affect biological resources would be less-than-significant (Certified EIR IS, pp. 3-13, 3-14).

The Certified EIR IS recognized the following regarding the potential for the Original Project to affect biological resources:

- The subject site is extensively disturbed by human activities, and has been substantially altered from its natural state. The subject site is devoid of any substantive natural habitat and evidences no sensitive or valuable biological resources. Nor does the Project propose uses or activities that would otherwise adversely affect biological resources.
- No riparian habitat or other sensitive natural community exists within the subject site or the surrounding area. Urbanization of the area has replaced native vegetation with non-native grasses, hedges, and trees. Any existing vegetation serves as habitat for local common species that will likely be dispersed to other nearby areas during construction.
- No federally-protected wetlands areas exist within the subject site or in surrounding areas.
- The Project site is urbanized and is bordered by roadways and other urban development. As such, the potential for native wildlife species to use the Project site as a migratory corridor or nursery site is unlikely.
- There are no protected tree species or other biologically significant resources on the subject site. Nor are there any local or area-wide preservation or conservation plans or policies applicable to the subject site.

Based on the preceding, the Certified EIR IS concluded that the Original Project would have no impact or a less-than-significant impact under the environmental topics identified at Checklist Item 4., *Biological Resources*, a – f.

Certified EIR Mitigation Measures: None.

Modified Project: The subject site remains devoid of any substantive or protected biological resources. The Modified Project does not otherwise propose or require uses or activities that would potentially affect protected biological resources. As with the Original Project, the Modified Project would have no impact, or a less-than-significant

impact under the environmental topics identified at Checklist Item 4., *Biological Resources*, a – f.

Modified Project Mitigation Measures: None.

Summary

As substantiated by the preceding discussions, no new or substantially increased biological resources impacts would occur as a result of the Modified Project. Accordingly, there are determined to be no changes or new information associated with the Modified Project requiring preparation of an EIR.

Sources: Pomona General Plan; Phillips Ranch Specific Plan; Pomona Hyatt Hotel Project Environmental Impact Report, SCH No. 2016011079 (Certified EIR); Preliminary Plans for Pomona Hyatt Hotel Project, Revised March 2018.

5. CULTURAL RESOURCES

| | | Substantial | Substantial | New Information | New Information Showing Ability to | No Changes | |
|-----|---------------------------------------|-------------|---------------|--------------------|------------------------------------|-------------|--------|
| | | Change in | Change in | Showing | Reduce but | or New | |
| | | Project | Circumstances | Greater | not Eliminate | Information | |
| | | Requiring | Requiring | Significant | Significant | Requiring | |
| TAT | 11.1 | Major EIR | Major EIR | Effects than | Effects in | Preparation | No |
| VV | ould the project: | Revisions | Revisions | Previous EIR | Previous EIR | of an EIR | Impact |
| a) | Cause a substantial adverse change in | | | | | | |
| | the significance of a historical or | | | | | X | |
| | archaeological resource as defined in | | | | | Λ | |
| | Section 15064.5? | | | | | | |
| b) | Directly or indirectly destroy a | | | | | | |
| | unique paleontological resource or | | | | | Χ | |
| | site or unique geologic feature? | | | | | | |
| c) | Disturb any human remains, | | | | | | |
| | including those interred outside of | | | | | Χ | |
| | formal cemeteries? | | | | | | |

a – c) No Changes or New Information Requiring Preparation of an EIR.

Certified EIR Conclusions: The Certified EIR IS substantiates that the potential for Original Project to adversely affect cultural resources would be less-than-significant.

The Certified EIR IS notes that there are no known historic, archaeologic, or paleontologic resources of significance within the subject site. Nor would the Original Project otherwise affect historic, archaeologic, or paleontologic resources. Moreover, past and existing development of the subject site indicates that whatever resources may have been previously present, have likely since been disturbed and/or removed. The EIR prepared for the Pomona Ranch Plaza prior to its development in the mid-1990s indicates that "No historically or prehistorically significant sites or structures are known to exist" on-site, and that "No traces of unique cultural resources, or religious or sacred uses have been identified on-site or in the general vicinity." (Initial Study, p. 24, in the *City of Pomona Regional Retail Center Environmental Impact Report*, SCH# 1993021028, February 22, 1994). Based on this previous environmental review, and known past disturbances of the subject site, the potential for the Original Project to cause a substantial adverse change in the significance of historic, archaeological and/or paleontological cultural resources was determined to be less-than-significant (Certified EIR IS, pp. 3-15, 3-16).

Certified EIR Mitigation Measures: None.

Modified Project: The subject site remains devoid of historic, archaeologic, or paleontologic resources of significance. The Modified Project does not propose or require uses or activities that would otherwise affect historic, archaeologic, or paleontologic resources. As with the Original Project, the potential for the Modified Project to cause a substantial adverse change in the significance of historic, archaeological and/or paleontological cultural resources would be less-than-significant.

Modified Project Mitigation Measures: None.

Summary

As substantiated by the preceding discussions, no new or substantially increased cultural resources impacts would occur as a result of the Modified Project. Accordingly, there are determined to be no changes or new information associated with the Modified Project requiring preparation of an EIR.

Sources: Pomona General Plan; Phillips Ranch Specific Plan; Pomona Hyatt Hotel Project Environmental Impact Report, SCH No. 2016011079 (Certified EIR); City of Pomona Regional Retail Center Environmental Impact Report, SCH# 1993021028, February 22, 1994; Preliminary Plans for Pomona Hyatt Hotel Project, Revised March 2018.

6. GEOLOGY AND SOILS

| W | ould the project: | Substantial Change in Project Requiring Major EIR Revisions | Substantial Change in Circumstances Requiring Major EIR Revisions | New Information Showing Greater Significant Effects than Previous EIR | New Information Showing Ability to Reduce but not Eliminate Significant Effects in Previous EIR | No Changes or New Information Requiring Preparation of an EIR | No Impact |
|----|--|--|--|---|---|--|--------------|
| a) | Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving: (i) rupture of a known earthquake fault; (ii) strong seismic ground shaking; (iii) seismic-related ground failure, including liquefaction; or (iv) landslides? | | | | | Х | |
| b) | Result in substantial soil erosion or the loss of topsoil? | | | | | X | |
| c) | Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse? | | | | | Х | |
| d) | Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property? | | | | | Х | |

| | | | | New | | |
|--|-------------|---------------|--------------|---------------|----------------|--------|
| | | | | Information | | |
| | | | New | Showing | | |
| | Substantial | Substantial | Information | Ability to | No Changes | |
| | Change in | Change in | Showing | Reduce but | or New | |
| | Project | Circumstances | Greater | not Eliminate | Information | |
| | Requiring | Requiring | Significant | Significant | Requiring | |
| | Major EIR | Major EIR | Effects than | Effects in | Preparation of | No |
| Would the project: | Revisions | Revisions | Previous EIR | Previous EIR | an EIR | Impact |
| e) Have soils incapable of adequately | | | | | | |
| supporting the use of septic tanks or | | | | | | |
| alternative waste water disposal | | | | | | X |
| systems where sewers are not available | | | | | | |
| for the disposal of waste water? | | | | | | |

a) No Changes or New Information Requiring Preparation of an EIR.

Certified EIR Conclusions: The Certified EIR IS substantiates that the potential for the Original Project to expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving: (i) rupture of a known earthquake fault; (ii) strong seismic ground shaking; (iii) seismic-related ground failure, including liquefaction; or (iv) landslides would be less-than-significant.

Acting to reduce potential geology and soils impacts generally, the Original Project would be required to comply with the provisions of the site and development-specific geotechnical investigation, required as part of the City's building permit application and review processes.

The Certified EIR IS recognized that the Original Project is located within a seismically active region. However, no known active or potentially active earthquake faults traverse the subject site, and no Earthquake Fault Special Study Zones (formerly Alquist-Priolo Zones) are located within the City. The subject site is not substantively affected by seismically-induced settlement or liquefaction hazards.

The subject site is considered hillside terrain, and development proposed by the Original Project would require terrain modification and site improvements to include construction of slopes and retaining walls. The Preliminary Geotechnical Evaluation prepared for the

Original Project establishes engineering specifications and performance standards that would ensure that any required slopes and/or retaining walls would be designed, constructed, and maintained to preclude slope failure and/or landslides. Prior to the issuance of building permits, the City would require a final site and use-specific geotechnical evaluation and preparation of related site and building plans incorporating necessary seismic design and engineering elements.

It is noted further that CEQA only requires an analysis of, and mitigation of, a given project's impacts on the environment, and of project effects that could exacerbate existing conditions, thereby resulting in potentially significant environmental impacts. The Original Project does not propose uses or activities that would potentially contribute to or exacerbate effects involving: (i) rupture of a known earthquake fault; (ii) strong seismic ground shaking; (iii) seismic-related ground failure, including liquefaction; or (iv) landslides.

Based on the preceding, the Certified EIR IS concluded that the potential for the Original Project to expose people or structures to potential substantial adverse effects involving: (i) rupture of a known earthquake fault; (ii) strong seismic ground shaking; (iii) seismic-related ground failure, including liquefaction; or (iv) landslides would be less-than-significant (Certified EIR IS, pp. 3-18 - 3-20).

Certified EIR Mitigation Measures: None.

Modified Project: Underlying geology/soils conditions at the subject site have not substantively changed since preparation of the Certified EIR. As with the Original Project, the Modified Project would be required to comply with the provisions of the site and development-specific geotechnical investigation, required as part of the City's building permit application and review processes.

The Preliminary Geotechnical Evaluation prepared for the Original Project establishes engineering specifications and performance standards that would ensure that any required slopes and/or retaining walls would be designed, constructed, and maintained to preclude slope failure and/or landslides. Prior to the issuance of building permits, the

City would require a final site and use-specific geotechnical evaluation and preparation of related site and building plans for the Modified Project incorporating necessary seismic design and engineering elements.

Based on the preceding, as with the Original Project, the potential for the Modified Project to expose people or structures to potential substantial adverse effects involving: (i) rupture of a known earthquake fault; (ii) strong seismic ground shaking; (iii) seismic-related ground failure, including liquefaction; or (iv) landslides would be less-than-significant.

Modified Project Mitigation Measures: None.

b) No Changes or New Information Requiring Preparation of an EIR.

Certified EIR Conclusions: The Certified EIR IS substantiates that the potential for the Original Project to result in substantial soil erosion or the loss of topsoil would be less-than-significant.

The Certified EIR IS recognizes that the Original Project could result in temporary soil erosion impacts during construction; and long-term soil erosion impacts over the life of the development. These potential impacts are addressed respectively through mandated compliance with a City-approved Storm Water Pollution Prevention Plan (SWPPP), and City-approved Standard Urban Stormwater Management System (SUSMP).

Based on the preceding, the Certified EIR IS concluded that the potential for the Original Project to result in substantial soil erosion or the loss of topsoil would be less-than-significant (Certified EIR IS, pp. 3-20, 3-21).

Certified EIR Mitigation Measures: None.

Modified Project: Underlying geology/soils conditions at the subject site have not substantively changed since preparation of the Certified EIR. As with the Original Project, potential soil erosion impacts occurring under the Modified Project would be mitigated

through compliance with mandated City-approved Storm Water Pollution Prevention Plan and Standard Urban Stormwater Management System.

Based on the preceding, as with the Original Project, the potential for the Modified Project to result in substantial soil erosion or the loss of topsoil would be less-than-significant.

Modified Project Mitigation Measures: None.

c, d) No Changes or New Information Requiring Preparation of an EIR.

Certified EIR Conclusions: The Certified EIR IS substantiates that the potential for the Original Project to be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse; or be located on expansive soil thereby creating substantial risks to life or property would be less-than-significant.

The Certified EIR IS and the Preliminary Geotechnical Evaluation prepared for the Original Project substantiate that the subject site is not affected by expansive or otherwise unstable soils. Further, subsidence is not considered to be a factor with the underlying materials in areas to be developed with the Project structures.

As with other potential geologic/soils issues, the Original Project would be required to comply with requirements of the final City-approved geotechnical report, and applicable provisions of the City Building Code and CBC, to include design- and site-appropriate means to avoid or minimize any expansive soils concerns that may be encountered.

Based on the preceding, the Certified EIR IS concluded that the potential for the Original Project to be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse; or be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code would be less-than-significant (Certified EIR IS, p. 3-21).

Certified EIR Mitigation Measures: None.

Modified Project: Underlying geology/soils conditions at the subject site have not substantively changed since preparation of the Certified EIR. That is, the subject site is not affected by expansive or otherwise unstable soils. Further subsidence is not

not affected by expansive or otherwise unstable soils. Further, subsidence is not

considered to be a factor with the underlying materials in areas to be developed with the

Project structures.

As with the Original Project, the Modified Project would be required to comply with

requirements of the final City-approved geotechnical report, and applicable provisions

of the City Building Code and CBC, to include design- and site-appropriate means to

avoid or minimize any expansive soils concerns that may be encountered.

Based on the preceding, as with the Original Project, the potential for the Modified Project

to be located on a geologic unit or soil that is unstable, or that would become unstable as

a result of the project, and potentially result in on- or off-site landslide, lateral spreading,

subsidence, liquefaction or collapse; or be located on expansive soil, as defined in Table

18-1-B of the Uniform Building Code would be less-than-significant.

Modified Project Mitigation Measures: None.

e) No Impact.

Certified EIR Conclusions: The Certified EIR IS substantiates that the Original Project

would have no potential to rely on soils incapable of adequately supporting the use of

septic tanks, or propose alternative waste water disposal systems where sewers are not

available for the disposal of waste water.

As discussed in the Certified EIR IS, the Original Project would be provided sanitary

sewer services by the City municipal sewer system. No septic tanks or other alternative

wastewater disposal systems are proposed. On this basis, the Certified EIR IS concluded

that the Original Project would have no impacts relative to septic tanks or alternative

waste water disposal systems (Certified EIR IS, p. 3-22).

Certified EIR Mitigation Measures: None.

Modified Project: As with the Original Project, the Modified Project would be provided sanitary sewer services by the City municipal sewer system. No septic tanks or other alternative wastewater disposal systems are proposed. On this basis, as with the Original Project, the Modified Project would have no impacts relative to septic tanks or alternative waste water disposal systems.

Modified Project Mitigation Measures: None.

Sources: Pomona General Plan EIR; Pomona Hyatt Hotel Project Environmental Impact Report, SCH No. 2016011079 (Certified EIR); Updated Geotechnical Evaluation for Proposed Hotels, Parking Structure and Parking Area, 41 Rancho Camino Drive, Pomona Ranch Plaza, Pomona, Los Angeles County, California (GeoTek, Inc.) June 18, 2015; Preliminary Plans for Pomona Hyatt Hotel Project, Revised March 2018.

7. GREENHOUSE GAS EMISSIONS

| | | Substantial Change in | Substantial Change in | New Information Showing | New Information Showing Ability to Reduce but | No Changes or New | |
|----|--|--------------------------|--------------------------|-------------------------------|---|-----------------------------|--------|
| | | Project | Circumstances | Greater | not Eliminate | Information | |
| | | Requiring Major EIR | Requiring Major EIR | Significant Effects than | Significant Effects in | Requiring Preparation of | No |
| W | ould the project: | Revisions | Revisions | Previous EIR | Previous EIR | an EIR | Impact |
| a) | Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment? | | | | | Х | |
| b) | Conflict with any applicable plan, policy or regulation of an agency adopted for the purposed of reducing the emissions of greenhouse gases? | | | | | Х | |

a) No Changes or New Information Requiring Preparation of an EIR.

Certified EIR Conclusions: The Certified EIR substantiates that the potential for the Original Project to generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment would be less-than-significant.

The Original Project would reflect local requirements of the City of Pomona Green Plan (Green Plan) that would substantially lessen GHG emissions impacts. Specifically, the Original Project would achieve a minimum 27.75 reduction in Baseline GHG emissions. The Original Project would therefore comply with the local responsibility of a minimum 15 percent reduction in Baseline GHG emissions by the year 2020 established under the Green Plan. Compliance with local GHG emissions reduction plans and programs such as that established under the Green Plan demonstrates conformance to broader statewide GHG emissions reduction goals and strategies.

It is noted further that the Original Project would be consistent with development allowed and anticipated under the City of Pomona General Plan; and that the Original Project's potential GHG emissions impacts are reflected in the conclusions of the General Plan EIR. The City of Pomona General Plan EIR concluded that buildout of the City pursuant to the General Plan would result in less-than-significant GHG emissions impacts (General Plan EIR, p. 21, et al.). The Original Project GHG emissions impacts would similarly be less-than-significant.

Additionally, because the Original Project would comply with the requirements of the City General Plan and Green Plan, pursuant to *CEQA Guidelines* §15130(a) (3) and §15183.5, the Original Project's incremental contribution to GHG emissions impacts would therefore not be cumulatively considerable.

Based on the preceding, the Certified EIR concluded that the potential to the Original Project to generate greenhouse gas emissions, either directly or indirectly, that may have

a significant impact on the environment would be less-than-significant (Certified EIR, pp. 4.4-29-4.4-38).

Certified EIR Mitigation Measures: None.

Modified Project: GHG emissions in total under the Modified Project would be increased when compared to the Original Project. Nonetheless, the Modified Project would achieve a minimum 20.29 percent reduction in Baseline GHG emissions (see Appendix B, *Pomona Hyatt Hotel Focused Air Quality and Greenhouse Gas Memorandum* (Urban Crossroads, Inc.) May 11, 2018). The Modified Project would therefore comply the local responsibility of a minimum 15 percent reduction in Baseline GHG emissions by the year 2020 established under the Green Plan. As noted previously, compliance with local GHG emissions reduction plans and programs such as that established under the Green Plan demonstrates conformance to broader statewide GHG emissions reduction goals and strategies.

As with the Original Project, the Modified Project would be consistent with development allowed and anticipated under the City of Pomona General Plan. The Modified Project's potential GHG emissions impacts are reflected in the conclusions of the General Plan EIR. The City of Pomona General Plan EIR concluded that buildout of the City pursuant to the General Plan would result in less-than-significant GHG emissions impacts (General Plan EIR, p. 21, et al.). The Modified Project GHG emissions impacts would similarly be less-than-significant.

Additionally, because the Modified Project would comply with the requirements of the City General Plan and Green Plan, pursuant to *CEQA Guidelines* §15130(a) (3) and §15183.5, the Original Project's incremental contribution to GHG emissions impacts would therefore not be cumulatively considerable.

Based on the preceding, as with the Original Project, the potential for the Modified Project to generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment would be less-than-significant.

Modified Project Mitigation Measures: None.

b) No Changes or New Information Requiring Preparation of an EIR.

Certified EIR Conclusions: The Certified EIR substantiates that the potential for the Original Project to conflict with any applicable plan, policy or regulation of an agency adopted for the purposed of reducing the emissions of greenhouse gases would be less-than-significant.

The Certified EIR concluded that the Original Project would be consistent with and would support applicable statewide and City GHG emissions plans and programs, including state and local GHG emissions reduction policies and mandates reflected in the Green Plan; and the Original Project would achieve related GHG emissions reductions targets. The Original Project also incorporates certain design and operational energy efficiency and sustainability measures that would act to reduce the Original Project GHG emissions.

Based on the preceding, the Certified EIR concluded that the potential for the Original Project to conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases would be less-than-significant (Certified EIR, pp. 4.4-38, 4.4-39).

Certified EIR Mitigation Measures: None.

Modified Project: As with the Original Project, the Modified Project would comply with all state and local GHG emissions reduction policies and mandates reflected in the Green Plan. Additionally, the Modified Project would achieve related GHG emissions reductions targets. Consistent with City requirements, the Modified Project would incorporate design and operational energy efficiency and sustainability measures that would act to reduce GHG emissions.

Based on the preceding, as with the Original Project, the potential for the Modified Project to conflict with any applicable plan, policy or regulation of an agency adopted for the purposed of reducing the emissions of greenhouse gases would be less-than-significant.

Modified Project Mitigation Measures: None.

Summary

As substantiated by the preceding discussions, no new or substantially increased GHG emissions impacts would occur as a result of the Modified Project. Accordingly, there are determined to be no changes or new information associated with the Modified Project requiring preparation of an EIR.

Sources: City of Pomona General Plan; City of Pomona General Plan EIR; City of Pomona Green Plan; Pomona Hyatt Hotel Project Environmental Impact Report, SCH No. 2016011079 (Certified EIR); Pomona Hyatt Hotel Focused Air Quality and Greenhouse Gas Memorandum (Urban Crossroads, Inc.) May 11, 2018; Preliminary Plans for Pomona Hyatt Hotel Project, Revised March 2018.

8. HAZARDS AND HAZARDOUS MATERIALS

| | | | | New | New Information Showing | | |
|----|--|--|--|---|---|--|--------------|
| W | ould the project: | Substantial Change in Project Requiring Major EIR Revisions | Substantial Change in Circumstances Requiring Major EIR Revisions | Information Showing Greater Significant Effects than Previous EIR | Ability to Reduce but not Eliminate Significant Effects in Previous EIR | No Changes or New Information Requiring Preparation of an EIR | No Impact |
| a) | Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials? | | | | | Х | , |
| 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? | | | | | х | |

| TA7 | ould the enviset | Substantial Change in Project Requiring Major EIR | Substantial Change in Circumstances Requiring Major EIR | New Information Showing Greater Significant Effects than | New Information Showing Ability to Reduce but not Eliminate Significant Effects in | No Changes or New Information Requiring Preparation of | No |
|-----|--|---|---|--|--|--|--------|
| | ould the project: Emit hazardous emissions or handle | Revisions | Revisions | Previous EIR | Previous EIR | an EIR | Impact |
| c) | hazardous or acutely hazardous | | | | | | |
| | materials, substances, or waste within | | | | | Х | |
| | 1/4 mile of an existing or proposed | | | | | Λ | |
| | school? | | | | | | |
| d) | Be located on a site which is included | | | | | | |
| | on a list of hazardous materials sites | | | | | | |
| | compiled pursuant to Government | | | | | 3/ | |
| | Code Section 65962.5 and, as a result, | | | | | X | |
| | would it create a significant hazard to | | | | | | |
| | the public or the environment? | | | | | | |
| e) | For a project located within an airport | | | | | | |
| | land use plan or, where such a plan | | | | | | |
| | has not been adopted, within two | | | | | | |
| | miles of a public airport or public use | | | | | | Χ |
| | airport, would the project result in a | | | | | | |
| | safety hazard for people residing or | | | | | | |
| | working in the project area? | | | | | | |
| f) | For a project within the vicinity of a | | | | | | |
| | private airstrip, would the project | | | | | | |
| | result in a safety hazard for people | | | | | | X |
| | residing or working in the project | | | | | | |
| | area? | | | | | | |
| g) | Impair implementation of or | | | | | | |
| | physically interfere with an adopted | | | | | Χ | |
| | emergency response plan or | | | | | | |
| 1 \ | emergency evacuation plan? | | | | | | |
| h) | Expose people or structures to a | | | | | | |
| | significant risk of loss, injury or death | | | | | | |
| | involving wildland fires, including | | | | | Χ | |
| | where wildlands are adjacent to | | | | | | |
| | urbanized areas or where residences | | | | | | |
| | are intermixed with wildlands? | | | | | | |

a,b) No Changes or New Information Requiring Preparation of an EIR.

Certified EIR Conclusions: The Certified EIR IS substantiates that the potential for the Original Project to create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials; or 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 would be less-than-significant.

As discussed in the Certified EIR IS, the Original Project uses are not considered hazardous; nor consumers, users, or sources of hazards or hazardous materials. During the normal course of construction and operation activities, there would be limited transport of potentially hazardous materials (e.g., gasoline, diesel fuel, paints, solvents, fertilizer, etc.) to and from the subject site. The Original Project would be required to comply with all City and County Hazardous Materials Management Plans and regulations addressing transport, use, storage and disposal of these materials. The Original Project would not require uses or activities that would result in atypical transportation, use, storage, or disposal of hazardous or potentially hazardous materials not addressed under current regulations and policies.

The Certified EIR IS also addressed potential hazards associated with remediation and closure of the former Phillips Ranch Landfill (also referred to as the Pomona Ranch Road Disposal Site, or PRDS) underlying northerly portions of the subject site. Development in this area of the Project site would be restricted to parking areas or similar unoccupied improvements, and would be implemented only pursuant to completion of the approved Remedial Action Plan (RAP) for the Landfill (Final Remedial Action Plan, Phillips Ranch Landfill Site [URS Dames & Moore] May 9, 2001). Implementation of the RAP would entail rough grading disturbance(s) of the Landfill area and construction of a Landfill cap. Parking lot improvements would be constructed over the capped Landfill. Plans and permitting for remediation and capping of the Landfill have been previously approved by CalRecycle (the administrative permitting agency); remediation and capping of the

landfill would be accomplished by others prior to implementation of the Original Project buildings and surface improvements.

As also discussed in the Certified EIR IS, four groundwater monitoring wells exist within the subject site. These wells would no longer be used should the Original Project be implemented.¹

Based on the preceding, the Certified EIR IS concluded that the potential for the Original Project to: create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials; or 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 would be less-than-significant (Certified EIR IS, pp. 3-24, 3-25).

Certified EIR Mitigation Measures: None.

Modified Project: As with the Original Project, uses proposed under the Modified Project are not considered hazardous; nor consumers, users, or sources of hazards or hazardous materials. During the normal course of construction and operation activities, there would be limited transport of potentially hazardous materials (e.g., gasoline, diesel fuel, paints, solvents, fertilizer, etc.) to and from the subject site. The Modified Project would be required to comply with all City and County Hazardous Materials Management Plans and regulations addressing transport, use, storage and disposal of these materials. The Modified Project would not require uses or activities that would result in atypical transportation, use, storage, or disposal of hazardous or potentially hazardous materials not addressed under current regulations and policies.

Addendum to the Pomona Hyatt Hotel Project Environmental Impact Report (SCH No. 2016011079)

Appendix C.

¹ At the time the Certified EIR IS was prepared, it was anticipated that one of the four wells would be maintained for groundwater monitoring purposes. Subsequent evaluation conducted as part of the well destruction activities indicates that use of these wells in total is no longer necessary because they were installed prior to 1990 and likely have been dry since at least 2000 (Dames & Moore, 2000). These wells also interfered with the proposed landfill cover system construction, and would create a conduit to the subsurface. For these reasons, the wells were decommissioned. See also: *Well Destruction Report, Pomona Ranch Plaza Development Project* (Group Delta) April 26, 2018, Addendum

Since preparation of the Certified EIR, wells within the subject site have been abandoned and destroyed as required by the City and DWR. Please refer to *Well Destruction Report, Pomona Ranch Plaza Development Project* (Group Delta) April 26, 2018, Addendum Appendix C. Required remediation and capping of the PRDS is anticipated to be completed by the end of 2018. PRDS closure and capping documentation would be required by the City prior to the issuance of development permits.

Based on the preceding, as with the Original Project, the potential for the Modified Project to: create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials; or 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 would be less-than-significant.

Modified Project Mitigation Measures: None.

c) No Changes or New Information Requiring Preparation of an EIR.

Certified EIR Conclusions: The Certified EIR IS substantiates that the potential for the Original Project to emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school would be less-than-significant.

As discussed in the Certified EIR IS, no schools exist within, or are proposed within ½ mile of the subject site. Further, the Original Project would implement conventional hotel and office uses, and would not include elements or aspects that would create or otherwise result in hazardous emissions, and does not propose or require the handling of hazardous or acutely hazardous materials, substances, or waste.

Based on the preceding, the Certified EIR IS concluded that the potential for the Original Project to emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school would be less-than-significant (Certified EIR IS, pp. 3-25, 3-26).

Certified EIR Mitigation Measures: None.

Modified Project: As was discussed in the Certified EIR IS, no schools are located within or are proposed within ¼ of the subject site. Conditions regarding location of existing or

proposed schools relative to the subject remains unchanged since preparation of the

Certified EIR.

The Modified Project does not propose or require elements or aspects that would create

or otherwise result in hazardous emissions, and does not propose or require the handling

of hazardous or acutely hazardous materials, substances, or waste.

Based on the preceding, as with the Original Project, the potential for the Modified Project

to emit hazardous emissions or handle hazardous or acutely hazardous materials,

substances, or waste within one-quarter mile of an existing or proposed school would be

less-than-significant.

Modified Project Mitigation Measures: None.

d) No Changes or New Information Requiring Preparation of an EIR.

Certified EIR Conclusions: The Certified EIR IS substantiates that the potential for the

Original Project to be located on a site which is included on a list of hazardous materials

sites complied pursuant to Government Code Section 65962.5 and, as a result, create a

significant hazard to the public or the environment would be less-than-significant.

The Certified EIR IS recognizes the underlying Pomona Ranch Disposal Site (PRDS). The

PRDS is a Cortese-listed facility. Plans and permitting for remediation and capping of the

PRDS have been previously approved by CalRecycle (the administrative permitting

agency); and remediation and capping of the landfill would be accomplished by others

prior to implementation of the Project.

Based on the preceding, the Certified EIR IS concluded that the potential for the Original Project to be located on a hazardous materials site thereby resulting in a significant hazard to the public or the environment would be less-than-significant (Certified EIR IS, p. 3-26).

Certified EIR Mitigation Measures: None.

Modified Project: As noted previously at Checklist Item 8. b, since preparation of the Certified EIR, required remediation and capping of the PRDS would be accomplished consistent with City, CalRecycle and California Department of Toxic Substances (DTSC) requirements. Any previous potential impacts associated with the PRDS designation as a Cortese-listed facility would be addressed through remediation and capping of the PRDS.

On this basis, as with the Original Project, the potential for the Modified Project to be located on a Cortese-listed hazardous materials site, thereby resulting in a significant hazard to the public or the environment would be less-than-significant.

Modified Project Mitigation Measures: None.

e, f) No Impact.

Certified EIR Conclusions: The Certified EIR IS substantiates that the Original Project would have no potential to result in or cause safety hazards related to airport and/or airfield plans or operations.

As discussed in the Certified EIR IS, the subject site is not located within an airport land use plan, nor is it located within two miles of any airport. Brackett Field, the closest airport/airfield, is located approximately four miles northwesterly of the Project site. The Original Project would not implement or require activities or uses that would otherwise affect airports or airport operations.

Moreover, the Original Project would not exacerbate existing conditions, thereby resulting in potentially significant environmental impacts. The Original Project does not propose uses or activities that would potentially contribute to airport and/or airfield hazards.

On this basis, the Certified EIR IS concluded that the Original Project would have no impacts regarding public or private airports and/or aircraft-related safety hazards (Certified EIR IS, p. 3-26).

Certified EIR Mitigation Measures: None.

Modified Project: As discussed in the Certified EIR IS, the subject site is not located within an airport land use plan, nor is it located within two miles of any airport. Conditions regarding location of the subject site relative to airport land use plans, airfields, and airports remains unchanged since preparation of the Certified EIR. As with the Original Project, the Modified Project would not implement or require activities or uses that would otherwise affect airports or airport operations.

On this basis, as with the Original Project, the Modified Project would have no impacts regarding public or private airports and/or aircraft-related safety hazards.

Modified Project Mitigation Measures: None.

g) No Changes or New Information Requiring Preparation of an EIR.

Certified EIR Conclusions: The Certified EIR IS substantiates that the potential for the Original Project to impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan would be less-than-significant.

The Certified EIR IS notes that the Original Project would not implement designs or require activities that would interfere with an identified emergency response or emergency evacuation plan. Any right-of-way vacations and realignments required of the Original Project would be accomplished consistent with City design and construction

requirements, and would not substantively or adversely alter area traffic patterns and emergency response routes. Temporary alterations to vehicle circulation routes associated with construction activities would be addressed through a City-approved site and development-specific construction traffic management plan. Ongoing coordination with the local fire and police departments during construction would ensure that potential interference with emergency response and evacuation efforts are avoided.

Based on the preceding, the Certified EIR IS concluded that the potential for the Project to impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan would be less-than-significant (Certified EIR IS, p. 3-26, 3-27).

Certified EIR Mitigation Measures: None.

Modified Project: The Modified Project does not propose or require designs or activities that would interfere with an identified emergency response or emergency evacuation plan. Any right-of-way vacations and realignments required of the Modified Project would be accomplished consistent with City design and construction requirements, and would not substantively or adversely alter area traffic patterns and emergency response routes. Temporary alterations to vehicle circulation routes associated with construction activities would be addressed through a City-approved site and development-specific construction traffic management plan. Ongoing coordination with the local fire and police departments during construction would ensure that potential interference with emergency response and evacuation efforts are avoided.

On this basis, as with the Original Project, the potential for the Modified Project to impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan would be less-than-significant.

Modified Project Mitigation Measures: None.

h) No Changes or New Information Requiring Preparation of an EIR.

Certified EIR Conclusions: The Certified EIR IS substantiates that the potential for the Original Project to expose people or structures to a significant risk of loss, injury or death

involving wildland fires, would be less-than-significant.

The Certified EIR IS recognizes that the subject site is located in an area that has been largely urbanized, and there are no wildlands adjacent to the Project area. Moreover, the subject site and surrounding areas are currently provided fire protection and emergency response services by the Los Angeles County Fire Department. Mandated payment of Development Impact Fees (DIF) and taxes generated by the Original Project would be available to fund improvements necessary to offset incremental demands for fire

protection services that could result from the Original Project.

On this basis, the Certified EIR IS concluded that the Original Project to expose people or structures to a significant risk of loss, injury or death involving wildland fires would be

less-than-significant (Certified EIR IS, p. 3-27).

Certified EIR Mitigation Measures: None.

Modified Project: The subject site and surrounding areas remain largely urbanized, with no proximate wildland areas. Los Angeles County Fire Department maintains fire prevention/fire protection services for the subject site and surrounding areas. As with the Original Project, the Modified Project would remit required DIF and would generate taxes available to fund improvements necessary to offset incremental demands for fire

protection services that could result from the Modified Project.

On this basis, as with the Original Project, the potential for the Modified Project to expose people or structures to a significant risk of loss, injury or death involving wildland fires

would be less-than-significant.

Modified Project Mitigation Measures: None.

Summary

As substantiated by the preceding discussions, no new or substantially increased hazards/hazardous materials impacts would occur as a result of the Modified Project. Accordingly, there are determined to be no changes or new information associated with the Modified Project requiring preparation of an EIR.

Sources: Pomona General Plan EIR; Final Remedial Action Plan, Phillips Ranch Landfill Site (URS Dames & Moore) May 9, 2001; Well Destruction Report, Pomona Ranch Plaza Development Project (Group Delta) April 26, 2018; Pomona Hyatt Hotel Project Environmental Impact Report, SCH No. 2016011079 (Certified EIR); Preliminary Plans for Pomona Hyatt Hotel Project, Revised March 2018.

9. HYDROLOGY AND WATER QUALITY

| W | ould the project: | Substantial Change in Project Requiring Major EIR Revisions | Substantial Change in Circumstances Requiring Major EIR Revisions | New Information Showing Greater Significant Effects than Previous EIR | New Information Showing Ability to Reduce but not Eliminate Significant Effects in Previous EIR | No Changes or New Information Requiring Preparation of an EIR | No Impact |
|----|---|--|--|---|---|--|--------------|
| a) | Violate any water quality standards or waste discharge requirements? | | | | | X | |
| b) | Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (for example, the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)? | | | | | Х | |
| c) | Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site? | | | | | х | |

| | | Substantial Change in Project Requiring Major EIR | Substantial Change in Circumstances Requiring Major EIR | New Information Showing Greater Significant Effects than | New Information Showing Ability to Reduce but not Eliminate Significant Effects in | No Changes or New Information Requiring Preparation of | No |
|----|--|---|---|--|--|--|--------|
| | ould the project: | Revisions | Revisions | Previous EIR | Previous EIR | an EIR | Impact |
| d) | Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site? | | | | | Х | |
| e) | Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff? | | | | | Х | |
| f) | Otherwise substantially degrade water quality? | | | | | X | |
| g) | Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map? | | | | | | Х |
| h) | Place within a 100-year flood hazard area structures which would impede or redirect flood flows? | | | | | | Х |
| i) | Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam? | | | | | | Х |
| j) | Inundation by seiche, tsunami, or mudflow? | | | | | | Х |

Substantiation:

a) No Changes or New Information Requiring Preparation of an EIR.

Certified EIR Conclusions: The Certified EIR substantiates that the potential for the Original Project to violate any water quality standards or waste discharge requirements would be less-than-significant.

As discussed in the Certified EIR, the Original Project would be required to acquire and comply with requisite permits, and to conform to other applicable City of Pomona, Los Angeles County Sanitation Districts (LACSD), and Regional Water Quality Control Board (RWQCB) water quality standards waste discharge requirements, thereby acting to preclude, or substantively reduce the potential for the Project to violate established water quality standards and waste discharge requirements.

The Certified EIR discussions note that the Original Project would not generate wastewater or wastewater constituents requiring special handling or treatment, and that the Original Project would connect to existing municipal sanitary sewer system facilities. The Original Project would not implement or require wastewater systems or facilities that would affect area water quality.

The Original Project's plan for connection to existing sanitary sewer infrastructure would be subject to review and approval by the City and the LACSD. The Applicant would be required to apply for service and pay a mandated connection fee, which would be applied toward maintenance and expansion of wastewater treatment facilities in the manner determined by the LACSD.

The Original Project would be developed and operated in compliance with City and Los Angeles Regional Water Quality Control Board (LARWQCB) regulations and water quality standards. More specifically, the Original Project would provide connection to, and interface with, existing drainage systems in the least invasive manner possible. Design, configuration, and locations of proposed drainage system improvements would

be reviewed and approved by the City prior to, or concurrent with, application for grading permits.

The Original Project design would employ landscaped bioretention/biofiltration areas acting to further reduce the rate and quantity of stormwater discharges, while providing treatment of stormflows and elimination/reduction of discharged pollutants of concern.

All stormwater discharges would be required to comply with applicable provisions and performance standards articulated in the County's National Pollutant Discharge Elimination System (NPDES) permit. Consistent with NPDES, LARWQCB and City requirements, waste materials would not be discharged to drainage areas. Compliance with these, and other previously referenced state and regional water quality permitting mandates, would ensure the control of pollutants entering receiving waters.

Before the issuance of a grading permit, the Applicant shall prepare a Construction Stormwater Pollution Prevention Plan (SWPPP), in compliance with the applicable ordinances and regulations of the City of Pomona, the Los Angeles County Flood Control District, and the State Water Resources Control Board (SWRCB). The SWPPP shall incorporate Best Management Practices (BMPs) for control of pollutants in stormwater runoff during construction-related activities, and would be designed to address water erosion control, sediment control, off-site tracking control, wind erosion control, non-stormwater management control, and waste management and materials pollution control.

In compliance with the City's required Standard Urban Stormwater Mitigation Plan (SUSMP) and municipal stormwater permit, the Applicant would be required to develop and implement a development-specific SUSMP. The SUSMP would effectively prohibit non-stormwater discharges from new development and/or redevelopment projects, and reduce the discharge of pollutants from stormwater conveyance systems to the maximum extent practicable (MEP) statutory standard. The SUSMP responds accordingly by incorporating applicable Site Design, Source Control, and Treatment Control BMPs. The SUSMP and all required drainage improvements and BMPs would be designed and implemented to the satisfaction of the City and LARWQCB.

Based on the preceding discussions, the Certified EIR concluded that the potential for the Original Project to violate any water quality standards or waste discharge requirements would be less-than-significant (Certified EIR, pp. 4.6-20 - 4.6-24).

Certified EIR Mitigation Measures: None.

Modified Project: The Modified Project would be required to acquire and comply with requisite permits, and to conform to other applicable City of Pomona, LACSD, and RWQCB water quality standards waste discharge requirements, thereby acting to preclude, or substantively reduce the potential for the Project to violate established water quality standards and waste discharge requirements.

The Modified Project would not generate wastewater or wastewater constituents requiring special handling or treatment. The Modified Project would connect to existing municipal sanitary sewer system facilities. The Modified Project would not implement or require wastewater systems or facilities that would affect area water quality.

The Modified Project's plan for connection to existing sanitary sewer infrastructure would be subject to review and approval by the City and the LACSD. The Applicant would be required to apply for service and pay a mandated connection fee, which would be applied toward maintenance and expansion of wastewater treatment facilities in the manner determined by the LACSD.

The Modified Project would be developed and operated in compliance with City and LARWQCB regulations and water quality standards. More specifically, the Modified Project would provide connection to, and interface with, existing drainage systems in the least invasive manner possible. Design, configuration, and locations of proposed drainage system improvements would be reviewed and approved by the City prior to, or concurrent with, application for grading permits.

The Modified Project design would employ landscaped bioretention/biofiltration areas acting to further reduce the rate and quantity of stormwater discharges, while providing treatment of stormflows and elimination/reduction of discharged pollutants of concern.

All stormwater discharges would be required to comply with applicable provisions and performance standards articulated in the County's NPDES permit. Consistent with NPDES, LARWQCB and City requirements, waste materials would not be discharged to drainage areas. Compliance with these, and other previously referenced state and regional water quality permitting mandates, would ensure the control of pollutants entering receiving waters.

Before the issuance of a grading permit, the Applicant shall prepare a SWPPP, in compliance with the applicable ordinances and regulations of the City of Pomona, the Los Angeles County Flood Control District, and the SWRCB. The SWPPP shall incorporate BMPs for control of pollutants in stormwater runoff during construction-related activities, and would be designed to address water erosion control, sediment control, off-site tracking control, wind erosion control, non-stormwater management control, and waste management and materials pollution control.

In compliance with the City's required SUSMP and municipal stormwater permit, the Applicant would be required to develop and implement a development-specific SUSMP. The SUSMP would effectively prohibit non-stormwater discharges from new development and/or redevelopment projects, and reduce the discharge of pollutants from stormwater conveyance systems to the MEP statutory standard. The SUSMP responds accordingly by incorporating applicable Site Design, Source Control, and Treatment Control BMPs. The SUSMP and all required drainage improvements and BMPs would be designed and implemented to the satisfaction of the City and LARWQCB.

Based on the preceding, as with the Original Project, the potential for the Modified Project to violate any water quality standards or waste discharge requirements would be less-than-significant.

Modified Project Mitigation Measures: None.

b) No Changes or New Information Requiring Preparation of an EIR.

Certified EIR Conclusions: The Certified EIR IS substantiates that the potential for the Original Project to substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level would be less-than-significant.

Water is provided throughout the City by the City's Utility Services Department (Department). Groundwater consumed by the Original Project and the City of Pomona as a whole would be recharged pursuant to Department's policies and programs. The Original Project would not impinge on, or otherwise affect, designated recharge areas. The Original Project does not propose and would not require direct groundwater additions or withdrawals.

Certain groundwater monitoring wells within the subject site would be abandoned and destroyed as part of the site preparation processes. Well abandonment and destruction would comport with DWR and Los Angeles County Department of Public Health requirements. Please refer to previous discussions at Checklist Items 8., a-b.

Based on the preceding, the Certified EIR IS concluded that the Original Project impacts to groundwater availability, quality, or recharge capabilities would be less-than-significant (Certified EIR IS, p. 3-30).

Certified EIR Mitigation Measures: None.

Modified Project: Water is provided throughout the City by the City's Utility Services Department (Department). Groundwater consumed by the Modified Project and the City of Pomona as a whole would be recharged pursuant to Department's policies and programs. The Modified Project would not impinge on, or otherwise affect, designated recharge areas. The Modified Project does not propose and would not require direct groundwater additions or withdrawals.

Since preparation of the Certified EIR, abandonment and destruction of groundwater monitoring wells within the subject site has been accomplished consistent with City and DWR requirements. Please refer to previous discussions at Checklist Items 8. a-b, and to well abandonment/capping documentation presented at Appendix C to this Addendum.

Based on the preceding, as within the Original Project, the potential for the Modified Project to substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level would be less-than-significant.

Modified Project Mitigation Measures: None.

c – f) No Changes or New Information Requiring Preparation of an EIR.

Certified EIR Conclusions: The Certified EIR substantiates the potential for the Original Project to: substantially alter the existing drainage pattern of the site or area in a manner which would result in substantial erosion or siltation on- or off-site; substantially alter the existing drainage pattern of the site or area; substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site; create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems; provide substantial additional sources of polluted runoff; or otherwise substantially degrade water quality would be less-than-significant.

The Certified EIR recognizes that the Original Project would incorporate all necessary stormwater management system components, and would comply with all stormwater management system design, construction, and operational requirements mandated under the City Municipal Code and within regulations established by other agencies, such as the LARWQCB and California Department of Water Resources. In combination, the proposed stormwater management system components, and compliance with regulatory requirements would act to preclude potentially adverse drainage and stormwater runoff impacts. Attributes and features of the Original Project stormwater management system are summarized below:

- The Original Project stormwater management system concept emulates and maintains the site's general south-to-north drainage patterns. No streams or rivers traverse the Project site, nor would be otherwise substantively affected by the Project. The Project would therefore not substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river.
- The Original Project stormwater management system concept provides for bioretention/biofiltration of 1.5 times the Stormwater Quality Design Volume (SWQDv) acting to reduce and treat discharges from the site consistent with City and LARWQCB requirements. Further, the Original Project stormwater management system concept collects and directs developed stormwaters from impervious areas to existing and proposed storm drains, acting to minimize or preclude flooding, erosion, and siltation concerns at receiving facilities. The Original Project would therefore not substantially increase the rate or amount of surface runoff in a manner which would result in flooding or substantial erosion or siltation on- or off-site.
- Stormwater discharges from the subject site would be directed to the existing 66-inch Reinforced Concrete Pipe (RCP) located northeasterly of the subject site. This 66-inch RCP has been designed to convey runoff from future commercial buildout of the Pomona Ranch Plaza, including development of the subject site. The Original Project would therefore not create or contribute runoff water which would exceed the capacity of the existing or planned stormwater drainage systems.

As approved by the City, final designs of all storm drains, bioretention/biofiltration areas, and all proposed BMPs would achieve performance standards established under NPDES Permit No. CAS004001 Order No. R4-2012-0175.

Based on the preceding, the Certified EIR concluded that the potential for the Original Project to result in the following potential impacts would be less-than-significant: substantially alter the existing drainage pattern of the site or area, including through the

alteration of the course of a stream or river; substantially increase the rate or amount of surface runoff in a manner which would result in flooding or substantial erosion or siltation on- or off-site; or create or contribute runoff water which would exceed the capacity of the existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff (Certified EIR, pp. 4.6-25, 4.6-26).

Certified EIR Mitigation Measures: None.

Modified Project: As with the Original Project, the Modified Project would incorporate all necessary stormwater management system components, and would comply with all stormwater management system design, construction, and operational requirements mandated under the City Municipal Code and within regulations established by other agencies, such as the LARWQCB and California Department of Water Resources. In combination, the proposed stormwater management system components, and compliance with regulatory requirements would act to preclude potentially adverse drainage and stormwater runoff impacts. Attributes and features of the Modified Project stormwater management system would emulate those of the Original Project summarized above.

As approved by the City, final designs of all storm drains, bioretention/biofiltration areas, and all proposed BMPs would achieve performance standards established under the governing NPDES Permit.

Based on the preceding, as with the Original Project, the potential for the Modified Project to result in the following potential impacts would also be less-than-significant: substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river; substantially increase the rate or amount of surface runoff in a manner which would result in flooding or substantial erosion or siltation on- or off-site; or create or contribute runoff water which would exceed the capacity of the existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.

Modified Project Mitigation Measures: None.

g, h) No Impact.

Certified EIR Conclusions: The Certified EIR IS substantiates that the Original Project would have no impacts relative to placement of housing or other structures within a 100-year flood hazard zone.

The Certified EIR IS notes that the Original Project would not implement housing, and further that the subject site does not lie within a designated 100-year flood hazard zone.

On this basis, the Certified EIR IS concluded that there was no potential for the Original Project to place housing within a 100-year flood hazard area; or place within a 100-year flood hazard area structures which would impede or redirect flood flows (Certified EIR IS, p. 3-30).

Certified EIR Mitigation Measures: None.

Modified Project: Unlike the Original Project, the Modified Project would implement new housing (95 apartment units). Consistent with the discussion presented in the Certified EIR IS, the subject site remains outside of any designated 100-year flood zones. As such, housing proposed by the Modified Project would not be constructed within a designated 100-year flood hazard zone. Nor would the Modified Project otherwise place structures within a 100-year flood hazard zone.

On this basis, as with the Original Project, the Modified Project would have no potential to place housing within a 100-year flood hazard area; or place within a 100-year flood hazard area structures which would impede or redirect flood flows.

Modified Project Mitigation Measures: None.

i) No Changes or New Information Requiring Preparation of an EIR.

Certified EIR Conclusions: The Certified EIR IS substantiates that the potential for the Original Project to expose people or structures to a significant risk of loss, injury or death

involving flooding, including flooding as a result of the failure of a levee or dam would be less-than-significant. The Certified EIR IS notes that subject site is not located near any bodies of water or water storage facilities that would be susceptible to seiche. The subject site is not located near coastal waters and therefore is not subject to tsunami hazards. No slopes of significance have been identified on or near the subject site, and the subject site has not historically been affected by mudflows.

On this basis, the Certified EIR IS concluded that the potential for the Original Project to be adversely affected by inundation by seiche, tsunami, or mudflow hazards would be less-than-significant (Certified EIR IS, p. 3-31).

Certified EIR Mitigation Measures: None.

Modified Project: Consistent with the discussions presented in the Certified EIR IS, the subject site remains unaffected by any bodies of water or water storage facilities that would be susceptible to seiche; coastal waters and tsunami hazards; significant slopes, or potential mudflow hazards.

On this basis, as with the Original Project, the potential for the Modified Project to be adversely affected by inundation by seiche, tsunami, or mudflow hazards would be less-than-significant.

Modified Project Mitigation Measures: None.

Summary

As substantiated by the preceding discussions, no new or substantially increased hydrology and water quality impacts would occur as a result of the Modified Project. Accordingly, there are determined to be no changes or new information associated with the Modified Project requiring preparation of an EIR.

Sources: Pomona Hyatt Hotel Project Environmental Impact Report, SCH No. 2016011079 (Certified EIR); City of Pomona Standard Urban Storm Water Mitigation Plan (SUSMP) Guidance (City of Pomona) n.d.; City of Pomona Municipal Code Article X.

- Stormwater Management, et al.; Preliminary Plans for Pomona Hyatt Hotel Project, Revised March 2018.

10. LAND USE AND PLANNING

| W | ould the project: | Substantial Change in Project Requiring Major EIR Revisions | Substantial Change in Circumstances Requiring Major EIR Revisions | New Information Showing Greater Significant Effects than Previous EIR | New Information Showing Ability to Reduce but not Eliminate Significant Effects in Previous EIR | No Changes or New Information Requiring Preparation of an EIR | No Impact |
|----|---|--|--|---|---|--|--------------|
| a) | Physically divide an established community? | | | | | Х | |
| b) | Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect? | | | | | Х | |
| c) | Conflict with any applicable habitat conservation plan or natural community conservation plan? | | | | | Х | |

Substantiation:

a) No Changes or New Information Requiring Preparation of an EIR.

Certified EIR Conclusions: As substantiated in the Certified EIR IS, the potential for the Original Project to physically divide an established community would be less-than-than-significant.

The Certified EIR IS notes that the area encompassing the subject site does not accommodate an established community, but rather is characterized by commercial/retail development. The nearest residences are approximately 1,000 feet removed from the Original Project uses. It is therefore unlikely that the Original Project would result in

substantive offsite impacts (e.g., traffic, noise or dust generation) that would disrupt or otherwise adversely affect neighboring residential land uses.

On this basis, the Certified EIR IS concluded that the potential for the Original Project to physically divide an established community would be less-than-significant (Certified EIR IS, p. 3-32).

Certified EIR Mitigation Measures: None.

Modified Project: As with the Original Project, the site of the Modified Project is located in an area of commercial/retail development, and is separated from the nearest residential uses by approximately 1,000 feet. As with the Original Project, the Modified Project would not divide an established community and would not result in offsite impacts that would divide or disrupt an established community.

On this basis, as with the Original Project, the potential for the Modified Project to physically divide an established community would be less-than-significant.

Modified Project Mitigation Measures: None.

b, c) No Changes or New Information Requiring Preparation of an EIR.

Certified EIR Conclusions: The Certified EIR substantiates that the potential for the Original Project to conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the Project adopted for the purpose of avoiding or mitigating an environmental effect; or conflict with any applicable habitat conservation plan or natural community conservation plan would be less-than-significant.

The Certified EIR recognizes that the Original Project would be subject to land use plans, policies, guidelines, and regulations established by the City of Pomona. To these ends, the Certified EIR discussions support the following conclusions:

- The Original Project would implement retail commercial land uses and development intensities that are consistent with the site's existing General Plan Place Type designation (Transit Oriented District).
- The Original Project land uses and development types are consistent with, and would support implementation of, the 2016 Phillips Ranch Specific Plan Amendment (2016 Specific Plan, Specific Plan). Prior to issuance of building permits, the City would review the Original Project site plan and facilities designs to ensure consistency with applicable guidelines and requirements established under the 2016 Phillips Ranch Specific Plan; and
- The Original Project is consistent with and supports the Southern California Association of Governments (SCAG) Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS).
- The subject site along with the majority of the City of Pomona is urbanized. There
 are no existing or proposed conservation plans in place for the subject site or
 surrounding areas; nor would the Original Project affect any identified
 conservation plans.

On this basis, the Certified EIR concluded that the potential for the Original Project to conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the Project adopted for the purpose of avoiding or mitigating an environmental effect; or conflict with any applicable habitat conservation plan or natural community conservation plan would be less-than-significant (Certified EIR, pp. 4.1-12 – 4.1-19).

Certified EIR Mitigation Measures: None.

Modified Project: When compared to the Original Project land uses evaluated in the Certified EIR, the substantive change proposed by the Modified Project would be replacement of the Original Project Office Use with a Mixed-Use Building that accommodates a fitness center and residential apartments.

The Modified Project, including the Mixed-Use Building fitness center and residential apartments, is consistent with development that would be allowed and is envisioned under the site's existing Transit Oriented District Place Type. As discussed in the City General Plan, the Transit Oriented District Place Type is anticipated to "feature a mix of uses – horizontally mixed-use in most cases but vertically mixed-use in the densest locations – typically with retail, commercial and civic activity on the ground floor and housing, lodging or workplace uses above" (General Plan, p. 64). Consistency of the Modified Project with applicable General Plan Goals and Policies is summarized at Table 10-1.

Table 10-1 Modified Project General Plan Goals and Policies Consistency

| , , , , , , , , , , , , , , , , , , , | n Goals and Folicies Consistency | | | | |
|--|---|--|--|--|--|
| Goals/Policies | Applicability/Consistency | | | | |
| SR-60/SR-71 Transit Oriented District | | | | | |
| Goal 6B.G12 Create evenly spaced and well-distributed activity cluster destinations that anchor the and west ends of the Holt Avenue corridor and the SR-60/SR-71 to strengthen the gateway function these locations. | | | | | |
| Policies | | | | | |
| 6B.P10 Use regulatory tools to concentrate height and intensity at these gateway locations. | provides for development of the subject site and the Pomona Ranch Plaza in total in a manner that would support site design, building height building massing, and building orientations envisioned under the General Plan. The Modified Project would comport with correlating design guidelines and development standards established under the 2016 Specific Plan, thereby promoting a safe, family-oriented community environment. | | | | |
| 7A.P1 Update the Zoning and Subdivision Ordinances to be consistent with and implement the vision identified in the Pomona Tomorrow General Plan diagram. | Consistent: Please refer to remarks at Policy 6B.P10 above. | | | | |
| 7B.P4 Guide new retail investment away from exclusively auto-oriented shopping and toward open-air, amenity driven formats that have both day- time and night-time activity and are clustered at major crossroads. | Consistent: The Modified Project collocates hotel, fitness center, and residential apartment uses within the existing Pomona Ranch Plaza commercial/retail center located at the proximate junction of SR-60/SR-71. The Pomona Ranch Plaza currently accommodates a variety of commercial/retail uses having both day-time and night-time activities. Uses proposed by the Project would energize existing uses and create new venues for daytime and nighttime activities. | | | | |

Sources: Goals and Policies from City of Pomona General Plan; remarks by Applied Planning, Inc.

Modified Project land uses and development types, inclusive of the Mixed-Use Building fitness center and residential apartments, are consistent with, and would support implementation of, the 2016 Specific Plan. The 2016 Specific Plan recognizes development constraints applicable to Specific Plan "Lot 9," the site of the Original Project and Modified Project. As noted in the Specific Plan, "[e]arly in the development process, proponents should consult with the City to discuss and ascertain feasibility of development proposals affecting the "Lot 9" area of the [Specific Plan]" (2016 Specific Plan, p. 2-3). The Applicant has coordinated development of the Modified Project development concept with the City, and the City considers the Modified Project concept to be compatible with applicable provisions of the 2016 Specific Plan. Prior to issuance of building permits, the City would review the Modified Project site plan and facilities designs to ensure consistency with applicable guidelines and requirements established under the 2016 Phillips Ranch Specific Plan.

As summarized at Table 10-2, the Modified Project land uses and development types are consistent with and would support implementation of Southern California Association of Governments (SCAG) Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS).

Table 10-2 Modified Project Consistency with SCAG Regional Goals

| RTP/SCS Goals | Remarks |
|----------------------------------|---|
| Goal 1: Align the plan | Consistent: The Modified Project proposes compatible development of |
| investments and policies with | vacant commercial property within a designated Transit Oriented |
| improving regional economic | District in the City of Pomona. The Modified Project provides an |
| development and | opportunity for large-scale investment in high quality development of |
| competitiveness. | new hotel, fitness center, and residential apartment uses that would |
| | promote the City of Pomona as a destination place; and would act to |
| | improve the City and regional economic development and |
| | competitiveness. |
| Goal 2: Maximize mobility | Consistent: The transportation network in the Modified Project area |
| and accessibility for all people | would be developed and maintained to meet the needs of local and |
| and goods in the region. | regional transportation, and to ensure efficient mobility. |
| Goal 3: Ensure travel safety | <i>Consistent:</i> The Certified EIR TIA identifies improvements that would |
| and reliability for all people | promote the safe movement of people and goods, with importance |
| and goods in the region. | placed on pedestrian safety as well as vehicular safety. No substantive |
| | new or different improvements beyond those identified in the |
| | Certified TIA would be required of the Modified Project. All |
| | transportation modes within the Project area would be required to |
| | follow safety standards set by corresponding regulatory documents. |

Table 10-2 Modified Project Consistency with SCAG Regional Goals

| Modified Project Consistency with SCAG Regional Goals | | | | | | | |
|---|--|--|--|--|--|--|--|
| RTP/SCS Goals | Remarks | | | | | | |
| | Roadways for motorists, as well as pedestrian walkways and bicycle/equestrian routes must follow safety precautions and standards established by local (e.g., City of Pomona) and regional (e.g., SCAG, Caltrans) agencies. | | | | | | |
| Goal 4: Preserve and ensure a sustainable regional transportation system. | Consistent: The Certified EIR TIA assesses all new and existing roadways and identifies required improvements to the existing transportation network. Through participation in the City's Development Impact Fee program, fees paid by the Modified Project and other development within the region would be employed to | | | | | | |
| | ensure that existing and future traffic capacities are provided. Mitigation included in the Certified EIR (Section 4.2, <i>Traffic and Circulation</i>) encourages regional coordination of transportation issues in order to preserve and ensure a sustainable regional transportation system. No substantive new or different improvements or mitigation beyond that identified in the Certified EIR would be required of the Modified Project. | | | | | | |
| Goal 5: Maximize the | Consistent: Local and regional transportation systems would be | | | | | | |
| productivity of our | improved and maintained to encourage efficiency and productivity. | | | | | | |
| transportation system. | The City oversees improvement and maintenance of all aspects of the | | | | | | |
| | public right-of-way and strives to maximize productivity of the | | | | | | |
| | region's public transportation system for residents, visitors, and | | | | | | |
| | workers. The Modified Project takes advantage of proximate access to the regional transportation system (e.g., adjacent SR-71) and | | | | | | |
| | incorporates necessary supporting transportation system elements | | | | | | |
| | and designs, thereby maximizing use of available transportation | | | | | | |
| | system assets. | | | | | | |
| Goal 6: Protect the | Consistent: The Modified Project would accommodate and would not | | | | | | |
| environment and health of our | interfere with any planned bicycle facilities. The Modified Project | | | | | | |
| residents by improving air | would provide a pedestrian access network that internally links uses | | | | | | |
| quality and encouraging active | and connects to proximate streets and pedestrian facilities. | | | | | | |
| transportation (non-motorized | • | | | | | | |
| transportation, such as | | | | | | | |
| bicycling and walking). | | | | | | | |
| Goal 7: Actively encourage | Consistent: Modified Project design features and operational | | | | | | |
| and create incentives for | programs incorporated in the final site and facility designs as | | | | | | |
| energy efficiency, where | approved by the City would encourage conservation of resources | | | | | | |
| possible. | generally, and efficient use of energy specifically. | | | | | | |
| Goal 8: Encourage land use | <i>Consistent:</i> The Modified Project is consistent with and supports the | | | | | | |
| and growth patterns that | City General Plan Transit Oriented District land use vision for the | | | | | | |
| facilitate transit and non- | subject site. Through concentration of development at locations | | | | | | |
| motorized transportation. | provided proximate connections to local and regional transportation | | | | | | |
| | networks, the City General Plan Regional Activity Center land uses | | | | | | |
| | facilitate and support provision of transit and non-motorized access. | | | | | | |
| Coal Or Maximiza the accessity | Please refer also to remarks at Goal 6. | | | | | | |
| Goal 9: Maximize the security | Consistent: The City is responsible for monitoring of existing and | | | | | | |
| of our transportation system | newly constructed roadways and transit routes to determine the | | | | | | |

Table 10-2 Modified Project Consistency with SCAG Regional Goals

| RTP/SCS Goals | Remarks | | | | | | |
|-------------------------------|---|--|--|--|--|--|--|
| through improved system | adequacy and safety of these systems. Other local and regional | | | | | | |
| monitoring, rapid recovery | agencies and organizations (e.g., Pomona Valley Transportation | | | | | | |
| planning, and coordination | Authority, Foothill Transit, Metrolink, Caltrans, and SCAG) work with | | | | | | |
| with other security agencies. | the City to manage these systems. Security situations involving | | | | | | |
| | transportation systems and evacuations would be addressed in the | | | | | | |
| | City's emergency management plans (e.g., the City's Emergency | | | | | | |
| | Operations Plan, July 18, 2011) which have been developed in | | | | | | |
| | accordance with the state and federal mandated emergency | | | | | | |
| | management regulations. | | | | | | |

Sources: Goal Statements from: 2016–2040 RTP/SCS); Remarks by Applied Planning, Inc.

The subject site and surrounding areas remain characteristically urban. There are no existing or proposed conservation plans in place for the subject site or surrounding areas; nor would the Modified Project affect any identified conservation plans.

Based on the preceding discussions, as with the Original Project, the potential for the Modified Project to conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the Project adopted for the purpose of avoiding or mitigating an environmental effect; or conflict with any applicable habitat conservation plan or natural community conservation plan would be less-than-significant.

Modified Project Mitigation Measures: None.

Summary

As substantiated by the preceding discussions, no new or substantially increased land use and planning impacts would occur as a result of the Modified Project. Accordingly, there are determined to be no changes or new information associated with the Modified Project requiring preparation of an EIR.

Sources: Pomona Hyatt Hotel Project Environmental Impact Report, SCH No. 2016011079 (Certified EIR); 2016 Phillips Ranch Specific Plan Amendment (Applied Planning, Inc.) July 2016; 2016 – 2040 SCAG Regional Transportation Plan and Sustainable Communities Strategy; Preliminary Plans for Pomona Hyatt Hotel Project, Revised March 2018.

11. MINERAL RESOURCES

| | | | | | New | | |
|----|---|-------------|---------------|--------------|---------------|----------------|--------|
| | | | | | Information | | |
| | | | | New | Showing | | |
| | | Substantial | Substantial | Information | Ability to | No Changes | |
| | | Change in | Change in | Showing | Reduce but | or New | |
| | | Project | Circumstances | Greater | not Eliminate | Information | |
| | | Requiring | Requiring | Significant | Significant | Requiring | |
| | | Major EIR | Major EIR | Effects than | Effects in | Preparation of | No |
| W | ould the project: | Revisions | Revisions | Previous EIR | Previous EIR | an EIR | Impact |
| a) | Result in the loss of availability of a | | | | | | ı |
| | known mineral resource that would | | | | | | χ |
| | be of value to the region and the | | | | | | ^ |
| | residents of the state? | | | | | | |
| a) | Result in the loss of availability of a | | | | | | |
| | locally-important mineral resource | | | | | | I |
| | recovery site delineated on a local | | | | | | X |
| | general plan, specific plan, or other | | | | | | I |
| | land use plan? | | | | | | |

Substantiation:

a, b) No Impact.

Certified EIR Conclusions: The Certified EIR IS substantiates that the Original Project would have no potential to 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; or result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan.

The Certified EIR IS notes that per the General Plan EIR, the City of Pomona does not lie within a Significant Mineral Aggregate Resource Area; nor is the City located in an area with active mineral extraction. As a result, no impacts relating to mineral resource extraction are anticipated.

Consistent with findings of the General Plan EIR, there is no evidence of known or probable mineral resources of value located within the subject site. Nor would the Original Project implement facilities or programs that would result in potential effects to off-site mineral resources of value.

Based on the preceding, the Certified EIR IS concluded that development of the Original Project would not result in any impacts to mineral resources that would be of future value to the region and the residents of the State; or 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 (Certified EIR IS, p. 3-34).

Certified EIR Mitigation Measures: None.

Modified Project: The subject site remains devoid of known or probable mineral resources of value. Furthermore, the Modified Project would not implement facilities or programs that would result in potential effects to off-site mineral resources of value.

On this basis, as with the Original Project, the Modified Project would have no potential to 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; or 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.

Modified Project Mitigation Measures: None.

Summary

As substantiated by the preceding discussions, no new or substantially increased mineral resources impacts would occur as a result of the Modified Project. Accordingly, there are determined to be no changes or new information associated with the Modified Project requiring preparation of an EIR.

Sources: Pomona General Plan EIR; *Hyatt Hotel Project Environmental Impact Report*, SCH No. 2016011079 (Certified EIR); Preliminary Plans for Pomona Hyatt Hotel Project, Revised March 2018.

12. NOISE

| W | ould the project result in: | Substantial Change in Project Requiring Major EIR Revisions | Substantial Change in Circumstances Requiring Major EIR Revisions | New Information Showing Greater Significant Effects than Previous EIR | New Information Showing Ability to Reduce but not Eliminate Significant Effects in Previous EIR | No Changes or New Information Requiring Preparation of an EIR | No Invest |
|----|--|--|--|---|---|--|--------------|
| a) | Exposure of persons to or generation | Revisions | Revisions | 1 levious EIX | 1 levious EIX | an en | Impact |
| | of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies? | | | | | Х | |
| b) | Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels? | | | | | Х | |
| c) | A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project? | | | | | Х | |
| d) | A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project? | | | | | Х | |
| e) | For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels? | | | | | | Х |
| f) | For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels? | | | | | | Х |

Substantiation:

a, c, d) No Changes or New Information Requiring Preparation of an EIR.

Certified EIR Conclusions: The Certified EIR substantiates that the potential for the Original Project to: result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable

standards of other agencies; result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project; or result a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project would be less-than-significant.

The Certified EIR addressed the potential for construction-source, vehicular-source, and operational/area-source generated by the Original Project to exceed applicable City standards and to adversely affect noise-sensitive receptors. To provide context of the Original Project within acceptable interior noise parameters established by the City, the Certified EIR also evaluated effects of potential noise sources on the Original Project. With implementation of mitigation, the Certified EIR concluded that no significant adverse impacts relating to noise would occur. Topical noise considerations addressed in the Certified EIR are summarized below.

Construction-Source Noise

The Certified EIR concluded that temporary/periodic noise generated by the Original Project construction activities would not exceed applicable standards or result in unacceptable noise levels at proximate sensitive receptors. Specifically, maximum construction-source noise levels received at the nearest residences would approximate 53.4 dBA Leq/59.3 dBA Lmax, and would therefore not exceed the City standards of 65 dBA Leq/85.0 dBA Lmax. Construction-source noise impacts would be short-term and intermittent and would not affect long-term noise conditions. Mitigation included in the Certified EIR (following) would act to globally reduce already less-than-significant construction-source noise levels while facilitating monitored compliance with City noise standards.

Certified EIR Mitigation Measures:

4.5.1 Prior to approval of grading plans and/or issuance of building permits, plans shall include a note indicating that noise-generating Project construction activities shall only occur between the hours of 7:00 a.m. to 8:00 p.m. on weekdays and Saturdays, with no activity allowed on Sundays and holidays. The Project construction supervisor shall ensure compliance with the note and the City shall conduct periodic inspection at its discretion.

4.5.2 During all Project site construction, the construction contractors shall equip all construction equipment, fixed or mobile, with properly operating and maintained mufflers, consistent with manufacturers' standards. The construction contractor shall place all stationary construction equipment so that emitted noise is directed away from the noise sensitive receptors nearest the Project site.

4.5.3 The construction contractor shall locate equipment staging in areas that will create the greatest distance between construction-related noise sources and noise-sensitive receivers nearest the Project site during all Project construction.

4.5.4 The construction contractor shall limit haul truck deliveries to the same hours specified for construction equipment (between the hours of 7:00 a.m. to 8:00 p.m. on weekdays and Saturdays, with no activity allowed on Sundays and holidays). The Project Applicant shall prepare a haul route exhibit to design delivery routes to minimize the exposure of sensitive land uses or residential dwellings to delivery truck-related noise.

Based on the preceding, the Certified EIR concluded that the potential for construction-source noise impacts of the Original Project to: result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies; result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project; or result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project would be less-than-significant (Certified EIR, pp. 4.5-31 – 4.5-34).

Vehicular-Source Noise

Vehicular-source noise generated by the Original Project would represent a potentially permanent rather than a temporary or periodic source of noise. The Certified EIR concluded that noise generated by the Original Project vehicular sources (traffic) would not exceed applicable standards or result in unacceptable noise levels at proximate sensitive receptors. Specifically, maximum incremental noise levels generated by traffic accessing the Original Project would not cause or result in increased noise levels that would exceed the 65 dBA CNEL threshold condition for residential land uses. Nor would

traffic generated by the Original Project cause or result in increased noise levels of greater than 1.5 dBA CNEL when the without-Project condition already exceeds 65 dBA CNEL.

Effects of Off-Site Vehicular-Source Noise

The Certified EIR also addressed potential effects of off-site vehicular-source noise on the Original Project. The Certified EIR included measures (below) that would reduce these effects in compliance with City interior noise standards.²

4.5.5 In order to meet the City of Pomona 45 dBA CNEL interior noise standards, and 2014 California Green Building Standards Code requirements, the final Project architectural designs should incorporate the following (or equivalent) noise attenuation features.

- Windows: All windows and sliding glass doors shall be well fitted, well weatherstripped assemblies and shall have a minimum sound transmission class (STC) rating of 40.
- o Doors: All exterior hinged and sliding glass doors to habitable rooms that are directly exposed to transportation noise and are facing the source of the noise shall be a door and edge seal assembly with a minimum STC rating of 27.
- o Roof: Roof sheathing of wood construction shall be well fitted or caulked plywood of at least one-half inch thick. Ceilings shall be well fitted, well-sealed gypsum board of at least one-half inch thick. Insulation with at least a rating of R-19 shall be used in the attic space.
- Ventilation: Arrangements for any habitable room shall be such that any exterior door or window can be kept closed when the room is in use. A forced air circulation system (e.g., air conditioning) shall be provided which satisfies the requirements of the Uniform Building Code.

Implementation of the above measures would ensure that the Original Project would achieve acceptable interior noise levels consistent with City standards.

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² Within the context of the discussions presented here, it is noted that the City General Plan establishes standards and policies addressing environmental noise impacts that could affect the Project. CEQA however only requires an analysis of and mitigation of a project's noise impacts on the environment, and of project effects that could exacerbate existing conditions, thereby resulting in potentially significant environmental impacts.

Based on the preceding, the Certified EIR concluded that the potential for vehicularsource noise impacts of the Original Project to: result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies; result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project; or result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project would be lessthan-significant (Certified EIR, pp. 4.5-34-4.5-40).

Operational/Area-Source Noise

Operational/area-source noise generated by the Original Project would represent a potentially permanent rather than a temporary or periodic source of noise. The Certified EIR concluded that noise generated by the Original Project operational/area sources would not exceed applicable standards or result in unacceptable noise levels at proximate sensitive receptors. Specifically, the Original Project would contribute operational/area-source noise level increases of up to 0.7 dBA L50 during the daytime hours, and up to 0.3 dBA L50 during the nighttime hours at the receiver locations. Noise generated by operations of the Original Project would not therefore not result in a perceptible increase in noise levels (3.0 dBA or greater) that would cause the acceptable ambient condition to be exceeded; or result in an increase of 1.5 dBA in ambient conditions when the noise environment at receiving land uses already exceeds the acceptable ambient noise condition.

Based on the preceding, the Certified EIR concluded that the potential for operational/area-source noise impacts of the Original Project to: result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies; result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project; or result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project would be less-than-significant (Certified EIR, pp. 4.5-41 – 4.5-46.)

Modified Project:

Construction-Source Noise

The Original Project and Modified Project would employ similar construction equipment and construction techniques. City Noise Ordinance constraints and limitations would apply uniformly to the Original Project and Modified Project. No new or additional sensitive receptors would be affected by the Modified Project's construction activities.

On this basis, construction-source noise impacts resulting from the Modified Project would be less-than-significant and would be comparable to those of the Original Project as considered and addressed in the Certified EIR.

Mitigation Measures incorporated in the Certified EIR are carried forward in this Addendum (see below) and would act to globally reduce already less-than-significant construction-source noise levels and facilitate monitored compliance with City noise standards.

N-1 Prior to approval of grading plans and/or issuance of building permits, plans shall include a note indicating that noise-generating Project construction activities shall only occur between the hours of 7:00 a.m. to 8:00 p.m. on weekdays and Saturdays, with no activity allowed on Sundays and holidays. The Project construction supervisor shall ensure compliance with the note and the City shall conduct periodic inspection at its discretion.

N-2 During all Project site construction, the construction contractors shall equip all construction equipment, fixed or mobile, with properly operating and maintained mufflers, consistent with manufacturers' standards. The construction contractor shall place all stationary construction equipment so that emitted noise is directed away from the noise sensitive receptors nearest the Project site.

N-3 The construction contractor shall locate equipment staging in areas that will create the greatest distance between construction-related noise sources and noise-sensitive receivers nearest the Project site during all Project construction.

N-4 The construction contractor shall limit haul truck deliveries to the same hours specified for construction equipment (between the hours of 7:00 a.m. to 8:00 p.m. on weekdays and Saturdays, with no activity allowed on Sundays and holidays). The Project Applicant shall prepare a haul route exhibit to design delivery routes to minimize the exposure of sensitive land uses or residential dwellings to delivery truck-related noise.

Based on the preceding, as with the Original Project, the potential for construction-source noise impacts of the Modified Project to: result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies; result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project; or result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project would be less-than-significant.

Vehicular-Source Noise

Under the Modified Project, total daily traffic generation is estimated at 3,300 vehicles per day. Any resulting incremental increases in area vehicular-source noise levels would be indiscernible. In this regard, all other factors being equal, the logarithmic nature of the dB scale means that a doubling (100 percent increase) in total roadway traffic volumes would be required to realize a perceptible 3 dB increase in noise levels, regardless of the absolute number of vehicles. Traffic would access the Original Project and the Modified Project via the Pomona Ranch Plaza main driveway connecting to adjacent Rio Rancho Road. The Certified TIA at Exhibit 6-2 indicates that Opening Year traffic volumes along Rio Rancho Road adjacent to the Pomona Ranch Plaza would approximate 20,500 to 36,000 vehicles per day. The Modified Project would generate approximately 3,300 average daily trips (ADT) (please refer to Checklist Item 16., Transportation/Traffic). These 3,300 daily trips would at most comprise 20 percent of the daily traffic volumes along adjacent Rio Rancho Road, and would not discernibly affect that roadway's noise levels. At locations more distant from the Pomona Ranch Plaza and the Modified Project, traffic noise contributions of the Modified Project would likely be further reduced as generated traffic volumes would be distributed and would represent diminishing contributions to area roadway network traffic volumes and area traffic noise.

Effects of Off-Site Vehicular-Source Noise

The Certified EIR included measures (below) that would reduce potential effects of offsite vehicular-source noise in compliance with City interior noise standards.³

N-5 In order to meet the City of Pomona 45 dBA CNEL interior noise standards, and 2014 California Green Building Standards Code requirements, the final Project architectural designs should incorporate the following (or equivalent) noise attenuation features.

- Windows: All windows and sliding glass doors shall be well fitted, well weatherstripped assemblies and shall have a minimum sound transmission class (STC) rating of 40.
- o Doors: All exterior hinged and sliding glass doors to habitable rooms that are directly exposed to transportation noise and are facing the source of the noise shall be a door and edge seal assembly with a minimum STC rating of 27.
- o Roof: Roof sheathing of wood construction shall be well fitted or caulked plywood of at least one-half inch thick. Ceilings shall be well fitted, well-sealed gypsum board of at least one-half inch thick. Insulation with at least a rating of R-19 shall be used in the attic space.
- Ventilation: Arrangements for any habitable room shall be such that any exterior door or window can be kept closed when the room is in use. A forced air circulation system (e.g., air conditioning) shall be provided which satisfies the requirements of the Uniform Building Code.

The above design measures, or similar construction implemented pursuant to City Building Code requirements, would ensure that the Modified Project would achieve acceptable interior noise levels consistent with City standards.

On this basis, as with the Original Project, the potential for the Modified Project vehicularsource noise to: result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards

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³ CEQA only requires an analysis of and mitigation of a project's noise impacts on the environment, and of project effects that could exacerbate existing conditions, thereby resulting in potentially significant environmental impacts. As the listed measures would not be required as mitigation under CEQA, it is recommended the measures be implemented through Conditions of Approval.

of other agencies; result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project; or result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project would be less-than-significant.

Operational/Area-Source Noise

The Certified EIR considered and addressed potential noise impacts resulting from the Original Project operational/area-sources. These impacts were determined to be less-than-significant. In this regard operational/area-source noise generated by the Original Project would not exceed or approach ambient daytime or nighttime noise levels at proximate sensitive receptors. Additionally, the Original Project would contribute at most an indiscernible 0.7 dBA to ambient L₅₀ (30 minute) daytime noise conditions, and 0.3 dBA to ambient L₅₀ nighttime noise conditions. In no case would the Original Project operational/area-source noise approach much less exceed applicable City noise standards.

The Modified Project would replace the Original Project Office Use with a Mixed-Use Building accommodating a fitness center and residential apartments, but would not otherwise substantively affect the Original Project. This proposed change in use would not introduce substantive new noise sources not considered and addressed in the Certified EIR. The resulting noise levels received at sensitive receptor land uses would not be substantively affected.

Based on the preceding, as with the Original Project, the potential for the Modified Project to: result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies; result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project; or result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project would be less-than-significant.

b) No Changes or New Information Requiring Preparation of an EIR.

Certified EIR Conclusions: As substantiated in the Certified EIR, the potential for the Original Project to result in exposure of persons to, or generation of, excessive groundborne vibration or groundborne noise would be less-than-significant.

The Original Project does not include nor require equipment, facilities, or activities that would result in substantial groundborne vibration or groundborne noise. However, during construction, equipment operating within the subject site has the potential to result in off-site vibration impacts.

Groundborne vibration levels resulting from the Original Project construction activities were estimated at a maximum of 0.013 in/sec (RMS), and would not exceed the City of Pomona 0.05 in/sec (RMS) vibration standards. The Original Project would also be required to comply with restrictions imposed by the City Noise Ordinance limiting construction activities to daytime hours, acting to ensure that any construction-source vibration generated by the Original Project would not occur during sensitive nighttime hours.

On this basis, the Certified EIR concluded that the potential for the Original Project to result in exposure of persons to, or generation of, excessive groundborne vibration or groundborne noise would be less-than-significant (Certified EIR, pp. 4.5-47 – 4.5-49).

Certified EIR Mitigation Measures: None.

Modified Project: The Modified Project does not propose or require equipment, facilities, or activities that would result in substantial groundborne vibration or groundborne noise. However, construction equipment operating within the subject site has the potential to result in off-site vibration impacts.

Vibration impacts resulting from the Modified Project would be comparable to those resulting from the Original Project. That is, the types of construction equipment employed and the peak vibration levels generated would be substantively the same under both the Original Project and the Modified Project.

Vibration levels resulting from the Modified Project construction activities would approximate the maximum of 0.013 in/sec (RMS) resulting from the Original Project, and would not exceed the City of Pomona 0.05 in/sec (RMS) vibration standards. The Modified Project would also be required to comply with restrictions imposed by the City Noise Ordinance limiting construction activities to daytime hours, acting to ensure that any construction-source vibration generated by the Modified Project would not occur during sensitive nighttime hours.

On this basis, as with the Original Project, the potential for the Modified Project to result in exposure of persons to, or generation of, excessive groundborne vibration or groundborne noise would be less-than-significant.

Modified Project Mitigation Measures: None.

e-f) No Impact.

Certified EIR Conclusions: The Certified EIR substantiates that the Original Project would not result in any impacts related to public airport/private airstrip noise exposure(s). The subject site is not located within an airport land use plan, and is more than two miles distant from the nearest public airport or public use airport. Brackett Field, the nearest airport, is located approximately four miles northwesterly of the Project site. While occasional aircraft overflight is expected, no excessive aircraft related noise would affect the Project area.

Moreover, the Original Project does not propose uses or activities that would potentially exacerbate existing airport/airfield noise exposures, thereby resulting in potentially significant environmental impacts. On this basis, the Certified EIR IS concluded that the Original Project would have no impacts regarding airport and/or aircraft-related noise exposure impacts (Certified EIR IS, p. 3-36).

Certified EIR Mitigation Measures: None.

Modified Project: The subject site remains excluded from any airport land use plan. Brackett Field, approximately four miles to the northwest, remains the airport nearest the subject site. The Modified Project does not propose uses or activities that would potentially exacerbate existing airport/airfield noise exposures, thereby resulting in potentially significant environmental impacts.

On this basis, as with the Original Project, the Modified Project would have no impacts regarding airport and/or aircraft-related noise exposure impacts.

Modified Project Mitigation Measures: None.

Summary

As substantiated by the preceding discussions, no new or substantially increased noise impacts would occur as a result of the Modified Project. Accordingly, there are determined to be no changes or new information associated with the Modified Project requiring preparation of an EIR.

Sources: City of Pomona Noise Ordinance (Municipal Code Article VII. - Noise and Vibration Control); Hyatt Hotel Project Environmental Impact Report, SCH No. 2016011079 (Certified EIR); Preliminary Plans for Pomona Hyatt Hotel Project, Revised March 2018.

13. POPULATION AND HOUSING

| Would the project: | Substantial Change in Project Requiring Major EIR Revisions | Substantial Change in Circumstances Requiring Major EIR Revisions | New Information Showing Greater Significant Effects than Previous EIR | New Information Showing Ability to Reduce but not Eliminate Significant Effects in Previous EIR | No Changes or New Information Requiring Preparation of an EIR | No Impact |
|--|--|--|---|---|--|--------------|
| a) Induce substantial 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)? | Revisions | REVISIONS | Trevious Elic | TREVIOUS EIN | X | Impuct |

| Would the project: | Substantial Change in Project Requiring Major EIR Revisions | Substantial Change in Circumstances Requiring Major EIR Revisions | New Information Showing Greater Significant Effects than Previous EIR | New Information Showing Ability to Reduce but not Eliminate Significant Effects in Previous EIR | No Changes or New Information Requiring Preparation of an EIR | No Impact |
|---|--|--|---|---|--|--------------|
| b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere? | | | | | | Х |
| c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere? | | | | | | Х |

Substantiation:

a) No Changes or New Information Requiring Preparation of an EIR.

Certified EIR Conclusions: The Certified EIR IS substantiates that the potential for the Original Project to induce substantial population growth in the area, either directly or indirectly would be less-than-significant.

The Original Project does not propose residential development and would not substantively contribute to population growth within the City. While the Original Project would generate certain additional employment opportunities, the majority of these jobs are expected to be filled by residents of Pomona and surrounding communities. Additionally, because the Original Project would be located within an existing commercial/retail center already served utilities and services, substantive extension of infrastructure would not be required to serve the Original Project; any localized infrastructure improvements would not encourage or facilitate unanticipated development.

Based on the preceding, the Certified EIR concluded that the potential for the Original Project to induce substantial population growth either directly or indirectly would be less-than-significant (Certified EIR IS, p. 3-37).

Certified EIR Mitigation Measures: None.

Modified Project: Direct population growth inducement would result from implementation of new residential uses proposed by the Modified Project. As discussed at Checklist Item 10., Land Use and Planning, the Modified Project proposes residential uses and supporting amenities that are consistent with residential development allowed under the site's current Transit Oriented District Place Type. As discussed in the City General Plan, the Transit Oriented District Place Type is anticipated to "feature a mix of uses – horizontally mixed-use in most cases but vertically mixed-use in the densest locations – typically with retail, commercial and civic activity on the ground floor and housing, lodging or workplace uses above" (General Plan, p. 64). Further, the Modified Project would implement a maximum of 95 apartment units within the approximately 14.88 acre development site, yielding a residential density of approximately 6.4 du/ac. This is less than the maximum 80 du/ac allowed under the site's current General Plan Transit Oriented District Place Type designation.

Because the Modified Project would be located within an existing commercial/retail center already served utilities and services, substantive extension of infrastructure would not be required to serve the Modified Project; any localized infrastructure improvements would not encourage or facilitate unanticipated development.

Based on the preceding, as with the Original Project, the potential for the Modified Project to induce substantial population growth either directly or indirectly would be less-than-significant.

Modified Project Mitigation Measures: None.

b-c) No Impact.

Certified EIR Conclusions: The Certified EIR IS substantiates that the Original Project would have no potential to displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere; or displace substantial numbers of people necessitating the construction of replacement housing elsewhere.

The Original Project would be implemented within an existing commercial/retail center. The Original Project does not involve or propose the displacement of any on-site or off-site housing resources.

On this basis, the Certified EIR IS concluded that the Original Project would have no potential to displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere; or displace substantial numbers of people necessitating the construction of replacement housing elsewhere (Certified EIR IS, p. 3-37).

Certified EIR Mitigation Measures: None.

Modified Project: The Modified Project would be implemented within an existing commercial/retail center. The Modified Project does not involve or propose the displacement of any on-site or off-site housing resources.

On this basis, as with the Original Project, the Modified Project would have no potential to displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere; or displace substantial numbers of people necessitating the construction of replacement housing elsewhere.

Modified Project Mitigation Measures: None.

Summary

As substantiated by the preceding discussions, no new or substantially increased population/housing impacts would occur as a result of the Modified Project. Accordingly, there are determined to be no changes or new information associated with the Modified Project requiring preparation of an EIR.

Sources: City of Pomona General Plan; Hyatt Hotel Project Environmental Impact Report, SCH No. 2016011079 (Certified EIR); Preliminary Plans for Pomona Hyatt Hotel Project, Revised March 2018.

14. PUBLIC SERVICES

| Would the project result in substantial adverse physical impacts associated with the provision of 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 public service: | Substantial Change in Project Requiring Major EIR Revisions | Substantial Change in Circumstances Requiring Major EIR Revisions | New Information Showing Greater Significant Effects than Previous EIR | New Information Showing Ability to Reduce but not Eliminate Significant Effects in Previous EIR | No Changes or New Information Requiring Preparation of an EIR | No Impact |
|--|--|--|---|---|--|--------------|
| a) Fire protection? | | | | | Х | |
| b) Police protection? | | | | | Х | |
| c) Schools? | | | | | X | |
| d) Parks? | | | | | X | |
| e) Other public facilities? | | | | | Х | _ |

Substantiation:

a, b) No Changes or New Information Requiring Preparation of an EIR.

Certified EIR Conclusions: The Certified EIR substantiates that the potential for the Original Project to result in or cause substantial adverse physical impacts associated with the provision of new or physically altered fire protection or police protection facilities; or result in the need for new or physically altered fire protection or police protection facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives would be less-than-significant.

Fire Protection Services

Fire protection and emergency medical services for the Original Project would be provided by the Los Angeles County Fire Department (LACoFD). Fire protection and emergency medical response services are provided throughout the City under municipal contract.

Prior to issuance of building permits, the Original Project site plan and design of proposed structures will be reviewed by the City and Fire Department to ensure compliance with Fire Department Conditions of Approval, to include emergency access and fire flow requirements, along with any fire prevention, protection, and/or suppression requirements (e.g., sprinkler systems, fire hydrants) as specified under existing City Ordinances and applicable Building Code and Fire Code provisions. Moreover, the Original Project would be required to comply with agency-specific criteria outlined in City Conditions of Approval. The Original Project would comply with these Conditions of Approval and subsequent requirements of the Fire Department identified through the City's final site plan and plan check/building permit review processes. Compliance with these requirements acts to further reduce potential demands for, and impacts upon, fire department and emergency response services.

Required payment of the City's Public Safety Improvement Fee would provide funding available to expand or enhance fire protection services. The City of Pomona, in consultation with LACoFD, would ultimately determine the most effective use of generated revenues and how they would be employed for the provision and enhancement of fire protection services.

Police Protection Services

For facilities such as those proposed by the Original Project, provision and maintenance of adequate police protection services is typically realized through a combination of:

- Site and facility designs that incorporate appropriate safety and security elements;
 and
- Adequate Police Department funding and staffing.

The Original Project site plan and proposed facilities designs would be reviewed by the Pomona Police Department to ensure the incorporation of appropriate safety and security elements including, but not limited to, appropriate building security and alarm systems, adequate outdoor lighting, and defensible spaces.

Required payment of the City's Public Safety Improvement Fee, collected from all new development, would provide supplemental funding available to expand or enhance police protection services. The City of Pomona, in consultation with the Pomona Police Department, would ultimately determine the most effective use of generated revenues and how they would be employed for the provision and enhancement of police protection services.

The Original Project would be constructed within an already-developed urban environment. Fire protection and police protection services are currently available to the subject site via existing facilities. Development impact fees and sales tax revenues generated by the Original Project would provide funding sources available for support and enhancement of fire and police protection services commensurate with incremental demands of the development. The Original Project would therefore not require new fire protection or police protection facilities, the construction of which would result in potentially significant environmental impacts. Nor would the Original Project substantively affect fire or police response times.

Based on the preceding, the Certified EIR concluded that the potential for the Original Project to result in or cause substantial adverse physical impacts associated with the provision of new or physically altered fire protection or police protection facilities; or result in the need for new or physically altered fire protection or police protection facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives would be less-than-significant (Certified EIR, pp. 4.7-6-4.7-9).

Certified EIR Mitigation Measures: None.

Modified Project:

Fire Protection Services

Fire protection and emergency medical services for the Modified Project would be provided by the Los Angeles County Fire Department (LACoFD). Fire protection and emergency medical response services are provided throughout the City under municipal contract.

Prior to issuance of building permits, the Modified Project site plan and design of proposed structures will be reviewed by the City and Fire Department to ensure compliance with Fire Department Conditions of Approval, to include emergency access and fire flow requirements, along with any fire prevention, protection, and/or suppression requirements (e.g., sprinkler systems, fire hydrants) as specified under existing City Ordinances and applicable Building Code and Fire Code provisions. Moreover, the Modified Project would be required to comply with agency-specific criteria outlined in City Conditions of Approval. The Modified Project would comply with these Conditions of Approval and subsequent requirements of the Fire Department identified through the City's final site plan and plan check/building permit review processes. Compliance with these requirements acts to further reduce potential demands for, and impacts upon, fire department and emergency response services.

Required payment of the City's Public Safety Improvement Fee would provide funding available to expand or enhance fire protection services. The City of Pomona, in consultation with LACoFD, would ultimately determine the most effective use of generated revenues and how they would be employed for the provision and enhancement of fire protection services.

Police Protection Services

For facilities such as those proposed by the Modified Project, provision and maintenance of adequate police protection services is typically realized through a combination of:

- Site and facility designs that incorporate appropriate safety and security elements;
 and
- Adequate Police Department funding and staffing.

The Modified Project site plan and proposed facilities designs would be reviewed by the Pomona Police Department to ensure the incorporation of appropriate safety and security

elements including but not limited to appropriate building security and alarm systems, adequate outdoor lighting, and defensible spaces.

Required payment of the City's Public Safety Improvement Fee, collected from all new development, would provide supplemental funding available to expand or enhance police protection services. The City of Pomona, in consultation with the Pomona Police Department, would ultimately determine the most effective use of generated revenues and how they would be employed for the provision and enhancement of police protection services.

The Modified Project would be constructed within an already-developed urban environment. Fire protection and police protection services are currently available to the subject site via existing facilities. Development impact fees and sales tax revenues generated by the Modified Project would provide funding sources available for support and enhancement of fire and police protection services commensurate with incremental demands of the development. The Modified Project would therefore not require new fire protection or police protection facilities, the construction of which would result in potentially significant environmental impacts. Nor would the Modified Project substantively affect fire or police response times.

Based on the preceding, as with the Original Project, the potential for the Modified Project to result in or cause substantial adverse physical impacts associated with the provision of new or physically altered fire protection or police protection facilities; or result in the need for new or physically altered fire protection or police protection facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives would be less-than-significant.

Modified Project Mitigation Measures: None.

c) No Changes or New Information Requiring Preparation of an EIR.

Certified EIR Conclusions: The Certified EIR IS substantiates that the potential for the Original Project to result in or cause substantial adverse physical impacts associated with the provision of new or physically altered school facilities; or result in the need for new or physically altered fire protection or police protection facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives would be less-than-significant.

Employment opportunities created by the Original Project may result in increased secondary impacts to school and park facilities. Increased student population could result from requests for Intra-District Transfers from employees wanting to enroll their children in schools closer to their place of employment. The Original Project would not, however, contribute substantively to the resident population base using school facilities. The potential for indirect effects of the Original Project to result in substantial adverse physical impacts associated with new or physically altered school facilities is therefore considered less-than-significant. The Original Project would pay required school impact fees, acting to offset any incremental effects to area school services and school facilities.

On this basis, the Certified EIR concluded that the potential for the Original Project to result in or cause substantial adverse physical impacts associated with the provision of new or physically altered school facilities; or result in the need for new or physically altered school facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives would be less-than-significant (Certified EIR IS, pp. 3-38, 3-39).

Certified EIR Mitigation Measures: None.

Modified Project: As with the Original Project, employment opportunities resulting from the Modified Project commercial/retail/service uses could indirectly result in demands on school facilities.

Development of the Modified Project's 95 apartment units would increase the student population within the serving Pomona Unified School District (District), increasing demands on District facilities. Student generation rates for apartment units presented in the City of Pomona General Plan EIR are presented below.⁴

- Elementary School (grades K 5): 0.10 students per unit
- Middle School (grades 6 8): 0.05 students per unit
- High School (grades 9 12): 0.08 students per unit

The 95 apartment units proposed by the Modified Project would generate approximately 9.5 new elementary students, 4.8 middle school students, and 7.6 high school students. The additional student populations generated by the Modified Project could be accommodated by existing District facilities and the Modified Project would therefore not require new or physically altered school facilities, the construction of which could cause significant environmental impacts.

Incremental demands on school facilities attributable to development projects are mitigated through mandated payment of school impact fees. The Modified Project would pay required school impact fees, acting to offset any incremental effects to area school services and school facilities.

On this basis, as with the Original Project, the potential for the Modified Project to result in or cause substantial adverse physical impacts associated with the provision of new or physically altered school facilities; or result in the need for new or physically altered school facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives would be less-than-significant.

Modified Project Mitigation Measures: None.

⁴ City of Pomona General Plan EIR, p. 4.11-17.

d) No Changes or New Information Requiring Preparation of an EIR.

Certified EIR Conclusions: The Certified EIR IS substantiates that the potential for the Original Project to result in substantial adverse physical impacts associated with the provision of the new or physically altered park facilities, need for new or physically altered park facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives would be less-than-significant.

Uses proposed by the Original Project would not introduce new residences to the area, or otherwise create substantive additional demands for park facilities or park services. On this basis, the Certified EIR IS concluded that the potential for the Original Project to result in or cause substantial adverse physical impacts associated with the provision of new or physically altered park facilities; or result in the need for new or physically altered park facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives would be less-than-significant (Certified EIR IS, p. 3-39).

Certified EIR Mitigation Measures: None.

Modified Project: Commercial/retail/service uses proposed by the Modified Project would not create substantive additional demands for park facilities or park services. As discussed at Section 15., *Recreation* (following) the Applicant would be required to pay all applicable park development impact fees acting to offset incremental demands on park facilities attributable to the Modified Project's proposed 95 apartment units. Further, uses developed pursuant to the Modified Project would incorporate certain on-site recreational/fitness facilities available to serve future residents of the Modified Project and to the City at large.

On this basis, as with the Original Project, the potential for the Modified Project to result in or cause substantial adverse physical impacts associated with the provision of new or physically altered park facilities; or result in the need for new or physically altered park facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives would be less-than-significant.

Modified Project Mitigation Measures: None.

e) No Changes or New Information Requiring Preparation of an EIR.

Certified EIR Conclusions: The Certified EIR IS substantiates that the potential for the Original Project to result in substantial adverse physical impacts associated with the provision of new or physically "other" public facilities, need for new or physically altered other public facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives would be less-than-significant.

Development of the Original Project would require established public agency oversight including, but not limited to, plan check and permitting actions by the City Planning Division, City Utility Services Department, City Public Works Department, Pomona Police Department, and the Los Angeles County Fire Department. Impacts of the Project affecting these other public agencies would fall within routine tasks of these agencies and are paid for via plan check and inspection fees. Impacts of the Original Project would therefore not be of such magnitude that new or physically altered facilities would be required.

On this basis, the Certified EIR IS concluded that the potential for the Original Project to 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 other public facilities would be less-than-significant (Certified EIR IS, p. 3-39).

Certified EIR Mitigation Measures: None.

Modified Project: As with the Original Project, development of the Modified Project would require established public agency oversight including, but not limited to, plan check and permitting actions by the City Planning Division, City Utility Services Department, City Public Works Department, Pomona Police Department, and the Los Angeles County Fire Department. Impacts of the Project affecting these other public agencies would fall within routine tasks of these agencies and are paid for via plan check and inspection fees. Impacts of the Modified Project would therefore not be of such magnitude that new or physically altered facilities would be required.

On this basis, as with the Original Project, the potential for the Modified Project to result in substantial adverse physical impacts associated with the provision of new or physically altered other public facilities, need for new or physically altered other public 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 other public facilities would be less-than-significant.

Modified Project Mitigation Measures: None.

Summary

As substantiated by the preceding discussions, no new or substantially increased public services impacts would occur as a result of the Modified Project. Accordingly, there are determined to be no changes or new information associated with the Modified Project requiring preparation of an EIR.

Sources: City of Pomona General Plan EIR; *Hyatt Hotel Project Environmental Impact Report*, SCH No. 2016011079 (Certified EIR); Preliminary Plans for Pomona Hyatt Hotel Project, Revised March 2018.

15. RECREATION

| | | Substantial Change in Project | Substantial Change in Circumstances | New Information Showing Greater | New Information Showing Ability to Reduce but not Eliminate | No Changes or New Information | |
|----|---|-------------------------------------|---|--|---|-------------------------------------|--------|
| | | Requiring Major EIR | Requiring Major EIR | Significant Effects than | Significant Effects in | Requiring Preparation of | No |
| W | ould the project: | Revisions | Revisions | Previous EIR | Previous EIR | an EIR | Impact |
| a) | Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated? | | | | | Х | |
| b) | Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment? | | | | | | Х |

Substantiation:

a) No Changes or New Information Requiring Preparation of an EIR.

Certified EIR Conclusions: The Certified EIR IS substantiates that the potential for the Original Project to increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial deterioration of the facility would occur or be accelerated would be less-than-significant.

The Original Project does not propose residential development that could result in substantive increased demands for neighborhood or regional parks or other recreational facilities.

On this basis, the Certified EIR IS concluded that the potential for the Original Project to increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial deterioration of the facility would occur or be accelerated would be less-than-significant (Certified EIR IS, p. 3-41).

Certified EIR Mitigation Measures: None.

Modified Project: Non-residential uses implemented under the Modified Project would

not substantively affect demands on recreational facilities. However, the 95 apartment

units proposed by the Modified Project could increase demands on area parks or other

recreational facilities. The Applicant would be required to pay all applicable park

development impact fees required of new development for the provision of Citywide

parkland and park development. Further, residential uses developed pursuant to the

Modified Project would incorporate on-site recreational/fitness facilities acting to offset

potential demands on area recreational facilities.

On this basis, as with the Original Project, the potential for the Modified Project to

increase the use of existing neighborhood and regional parks or other recreational

facilities such that substantial deterioration of the facility would occur or be accelerated

would be less-than-significant.

Modified Project Mitigation Measures: None.

b) No Impact.

Certified EIR Conclusions: The Certified EIR IS substantiates that the Original Project

would have no potential to require the construction or expansion of recreational facilities,

which might have an adverse physical effect on the environment.

The construction of recreational facilities is not included in the Original Project proposal,

nor would the Original Project require the construction or expansion of recreational

facilities.

On this basis, the Certified EIR IS concludes that the Original Project would have no

potential to require the construction or expansion of recreational facilities, which might

have an adverse physical effect on the environment (Certified EIR IS, p. 3-40).

Certified EIR Mitigation Measures: None.

Modified Project: The Modified Project fitness center would broadly be considered a recreational facility. The Modified Project fitness center would not result in environmental effects beyond those accruing to the Modified Project in total. As substantiated herein, the Modified Project would not result in new or additional significant impacts not already considered and addressed in the Certified EIR. The Modified Project does not otherwise propose or require construction or expansion of recreational facilities, which might have an adverse physical effect on the environment.

On this basis, the potential for the Modified Project to include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment would be less-than-significant.

Modified Project Mitigation Measures: None.

Summary

As substantiated by the preceding discussions, no new or substantially increased recreational facilities impacts would occur as a result of the Modified Project. Accordingly, there are determined to be no changes or new information associated with the Modified Project requiring preparation of an EIR.

Sources: City of Pomona General Plan EIR; *Hyatt Hotel Project Environmental Impact Report*, SCH No. 2016011079 (Certified EIR); Preliminary Plans for Pomona Hyatt Hotel Project, Revised March 2018.

16. TRANSPORTATION/TRAFFIC

| | | Substantial Change in Project | Substantial Change in Circumstances | New Information Showing Greater | New Information Showing Ability to Reduce but not Eliminate | No Changes or New Information | |
|----|--|-------------------------------------|---|---|---|---------------------------------------|--------------|
| Wo | ould the project: | Requiring Major EIR Revisions | Requiring Major EIR Revisions | Significant Effects than Previous EIR | Significant Effects in Previous EIR | Requiring Preparation of an EIR | No Impact |
| a) | Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit? | | | | | X | |
| b) | Conflict with an applicable congestion management program, including but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads and highways? | | | | | Х | |
| c) | Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks? | | | | | | Х |
| d) | Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)? | | | | | Х | |
| e) | Result in inadequate emergency access? | | | | | Х | |
| f) | Conflict with adopted policies, plans or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities? | | | | | Х | |

Substantiation:

a) No Changes or New Information Requiring Preparation of an EIR.

Certified EIR Conclusions: The Certified EIR substantiates that the potential for the Original Project to conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system would be less-than-significant as mitigated. Certified EIR conclusions in these regards are summarized below.

Existing Conditions (2015) Analysis

Under Existing Conditions, the Original Project would have less-than-significant impacts to intersections, roadway segments, and freeway ramps (Certified EIR, pp. 4.2-18, 4.2-19).

Opening Year (2018) Analysis

Under Opening Year Conditions, the Original Project would have less-than-significant impacts to Study Area intersections, roadway segments, and freeway ramps (Certified EIR, pp. 4.2-19, 4.2-20).

Horizon Year (2040) Analysis

Under Horizon Year Conditions, the Original Project would have less-than-significant impacts to Study Area intersections, roadway segments, and freeway ramps. Under Horizon Year Conditions, the Original Project would have a potentially significant queuing impact at the intersection of Rancho Camino Drive at Rio Rancho Road.⁵ Mitigation included in the Certified EIR (following) would reduce this impact to levels that would be less-than-significant (Certified EIR, pp. 4.2-20 – 4.2-22).

Addendum to the Pomona Hyatt Hotel Project Environmental Impact Report (SCH No. 2016011079)

⁵ The Certified EIR analysis indicates that the intersection of Rancho Camino Drive at Rio Rancho Road would operate at acceptable Level of Service (LOS) under Horizon Year + Project Conditions. However, westbound left-turn queues at this intersection would exceed the current left-turn pocket queue capacity. Mitigation is incorporated that would extend the westbound left turn pocket to accommodate 260-feet of stacking, with correlating modification of signal timing.

Certified EIR Mitigation Measure:

4.2.1 Prior to issuance of the first certificate of occupancy, the Project Applicant shall extend the westbound left turn pocket at Rancho Camino Drive at Rio Rancho Road to accommodate a minimum 260 feet of vehicle stacking. Signal timing at Rancho Camino Drive at Rio Rancho Road shall be modified accordingly as required by the City of Pomona.

Policy/Programs Consistency Analysis

The Certified EIR substantiates that the Original Project would be consistent with applicable General Plan Policies and Programs (Certified EIR pp. 4.2-23, 4.2-24).

Based on the preceding, the Certified EIR concluded that the potential for the Original Project to conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system would be less-than-significant as mitigated.

Modified Project: The Modified Project would increase the Hotel use by 15 rooms (to a total of 215 rooms) yielding a total Hotel building area of approximately 161,063 square feet; and would replace the currently entitled 3-story, 75,000-square-foot Office Building with a multi-story, Mixed-Use Building comprising a Health Club totaling approximately 46,273 square feet; and 95 Apartments.⁶ No other aspects of the Original Project would be substantively affected by the Modified Project. Trip generation estimates for the Original Project and Modified Project are summarized at Table 16-1.

Addendum to the Pomona Hyatt Hotel Project Environmental Impact Report (SCH No. 2016011079)

⁶ For purposes of transportation/traffic impact analyses, the Modified Project apartment units are appropriately evaluated as "Mid-Rise Residential Apartments with 1st-floor Commercial."

Table 16-1 Comparative Trip Generation Original Project and Modified Project

| Original Project and Woulfied Project | | | | | | | | | | |
|--|------------------|------------|--------------|----------|-------|--------------|---------|-------|----------------|--|
| Original Project: Hotel-200 Rooms, Office Uses | | | | | | | | | | |
| | ITE | Metric/ | A | M Peak H | our | PM Peak Hour | | | | |
| Land Use | Land Use Code | Quantity | In | Out | Total | In | Out | Total | Daily | |
| Hotel | 310 | 200 RM | 62 | 44 | 106 | 62 | 58 | 120 | 1,634 | |
| General Office | 710 | 75 TSF | 13 4 | 18 | 152 | 28 | 135 | 163 | 1,055 | |
| Total | | | 19 6 | 62 | 258 | 90 | 193 | 283 | 2,689 | |
| Modified Project: Hotel-215 Rooms, Health Club, and Apartments | | | | | | | | | | |
| | ITE | Metric/ | AM Peak Hour | | | Pi | Average | | | |
| Land Use | Land Use Code | Quantity | In | Out | Total | In | Out | Total | Daily Trips | |
| Hotel | 310 | 215 RM | 60 | 41 | 101 | 66 | 63 | 129 | 1,797 | |
| Internal Capture w | vith Health/Fit | ness Club | (1) | 0 | (1) | (3) | (2) | (5) | (70) | |
| Health/ Fitness Club | 492 | 46.273 TSF | 31 | 30 | 61 | 91 | 69 | 160 | 1,596 | |
| Internal Ca | pture with Ho | otel | 0 | (1) | (1) | (2) | (3) | (5) | (50) | |
| Internal Captu | are with Resid | ential | 0 | 0 | 0 | (4) | (11) | (15) | (150) | |
| Mid-Rise Residential w/ 1st-floor Commercial | 231 | 95 | 8 | 21 | 29 | 24 | 10 | 34 | 327 | |
| Internal Capture with Health/Fitness Club | | | 0 | 0 | 0 | (11) | (4) | (15) | (144) | |
| Total | | | 98 | 91 | 189 | 161 | 122 | 283 | 3,307 | |
| Modified Project Net Increase (Decrease) in Total Trips | | | (98) | 29 | (69) | 71 | (71) | | 618 | |

Source:

Notes: TSF-Thousand Square Feet; Sums may not total due to rounding.

As indicated at Table 16-1, the Modified Project would result in a total net increase in Average Daily Trips (ADT); and a net decrease in AM peak hour trips when compared to the Original Project. PM peak hour trip generation would be substantively equal under the Original Project and Modified Project.

Intersection, Roadway Segment, and Freeway Ramp Impacts

As substantiated in *Pomona Hyatt Hotel Focused Traffic Assessment* (Urban Crossroads, Inc.) May 11, 2018 (Focused Traffic Assessment), Addendum Appendix D, the increase in ADT trip under the Modified Project noted at Table 16-1 would not affect the Certified EIR

conclusions regarding the significance of potential intersection, roadway segment, and freeway ramp impacts, as summarized below:

Existing Conditions: As with the Original Project, the Modified Project would not result in potentially significant intersection, roadway segment, or freeway ramp queuing impacts (Focused Traffic Assessment, p. 4).

Opening Year Conditions: As with the Original Project, the Modified Project would not result in potentially significant intersection, roadway segment, or freeway ramp queuing impacts (Focused Traffic Assessment, pp. 4, 5).

Horizon Year Conditions: As with the Original Project, the Modified Project would not result in potentially significant intersection, roadway segment, or freeway ramp queuing impacts (Focused Traffic Assessment, p. 5).

As with the Original Project, under Horizon Year Conditions, the Modified Project would result in potentially significant westbound left-turn queuing impacts at Rancho Camino Drive at Rio Rancho Road (Focused Traffic Assessment, p. 5). Mitigation is carried forward from the Certified EIR (following) that would reduce this impact to levels that would be less-than-significant.

Modified Project Mitigation Measure:

TR-1 Prior to issuance of the first certificate of occupancy, the Project Applicant shall extend the westbound left turn pocket at Rancho Camino Drive at Rio Rancho Road to accommodate a minimum 260⁷ feet of vehicle stacking. Signal timing at Rancho Camino Drive at Rio Rancho Road shall be modified accordingly as required by the City of Pomona.

⁷ The Focused Traffic Assessment indicates this requirement could be reduced to 250 feet (Focused Traffic Assessment, p. 5)

For all other facilities and under all analytic scenarios, the Modified Project impacts at transportation/traffic facilities would be less-than-significant.

Policy/Programs Consistency Analysis

The Modified Project land uses and development types, inclusive of the Mixed-Use Building health/fitness club and residential apartments, are consistent with, and would support implementation of, City of Pomona General Plan Policies and Programs as summarized at Table 16-2.

Table 16-2
General Plan Objectives and Policies/Programs Consistency

| Objective/Policy | Remarks | | | | |
|--|---|--|--|--|--|
| Goal 7D.G24 | The Modified Project would provide bicycle | | | | |
| Require new development or redevelopment to provide | parking in amounts and in configurations | | | | |
| bicycle parking where appropriate and ensure it is | consistent with City requirements. The Project is | | | | |
| located in safe, prominent locations. | therefore consistent with and supports Goal | | | | |
| | 7D.G24. | | | | |
| Goal 7D.G26 | Under the Modified Project, all parking areas to | | | | |
| Align the amount of parking available and the amount of | include parking stalls, drive aisles, parking lot | | | | |
| parking provided by new development with the real | landscaping and hardscaping, would be designed | | | | |
| pattern of anticipated parking demand. | and constructed pursuant to City requirements as | | | | |
| | outlined at City of Pomona Zoning Ordinance. The | | | | |
| | Modified Project is therefore consistent with and | | | | |
| | supports Goal 7D.G26. | | | | |
| Policy 7D.P66 | The Modified Project would provide preferential | | | | |
| Revise parking standards to encourage and facilitate | carpool parking, bicycle parking, and supporting | | | | |
| alternative transportation modes by employing the | amenities consistent with City requirements. The | | | | |
| following: | Project is therefore consistent with and supports | | | | |
| Requirements for preferential parking for | Goal 7D.P66. | | | | |
| carpoolers. | | | | | |
| Bicycle parking requirements/lockers/showers | | | | | |
| for large development. | | | | | |

Sources: Objectives/Policies from City of Pomona General Plan; Remarks – Applied Planning, Inc.

Based on the preceding, as with the Original Project, the potential for the Modified Project to cause or result in a potential conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system would be less-than-significant as mitigated.

b) No Changes or New Information Requiring Preparation of an EIR.

Certified EIR Conclusions: The Certified EIR substantiates that the potential for the Original Project to conflict with an applicable congestion management program would be less-than-significant.

Impacts to CMP facilities are coincident with impacts to other Study Area facilities. With the exception of Horizon Year westbound left-turn queuing impacts at Rancho Camino Drive at Rio Rancho Road, all transportation/traffic impacts of the Original Project would be less-than-significant. Rancho Camino Drive at Rio Rancho Road is not a designated CMP intersection.

On this basis, the Certified EIR concluded that the potential for the Original Project to conflict with an applicable congestion management program would be less-than-significant (Certified EIR, p. 4.2-24).

Certified EIR Mitigation Measures: None.

Modified Project: As with the Original Project, impacts to CMP facilities are coincident with impacts to other Study Area facilities. With the exception of Horizon Year westbound left-turn queuing impacts at Rancho Camino Drive at Rio Rancho Road, all transportation/traffic impacts of the Modified Project would be less-than-significant. Rancho Camino Drive at Rio Rancho Road is not a designated CMP intersection.

On this basis, as with the Original Project, the potential for the Modified Project to conflict with an applicable congestion management program would be less-than-significant.

Modified Project Mitigation Measures: None.

c) No Changes or New Information Requiring Preparation of an EIR.

Certified EIR Conclusions: As substantiated in the Certified EIR IS, the potential for the Original Project to result in a change in air traffic patterns, including either an increase in

traffic levels or a change in location that results in substantial safety risks would be less-than-significant.

The Original Project does not propose elements or aspects that would affect air traffic patterns. The airport located nearest the subject site is Brackett Field, approximately four miles to the northwest. No other public or private airstrips exist in the vicinity of the Project.

On this basis, the Certified EIR IS concluded that the potential for the Original Project to result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks, would be less-than-significant (Certified EIR IS, p. 3-42).

Certified EIR Mitigation Measures: None.

Modified Project: The Modified Project does not propose elements or aspects that would affect air traffic patterns. Brackett Field remains as the airport nearest the subject site and is located approximately four miles to the northwest. No other public or private airstrips exist in the vicinity of the Project.

On this basis, as with the Original Project, the potential for the Modified Project to result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks would be less-than-significant.

Modified Project Mitigation Measures: None.

d) No Changes or New Information Requiring Preparation of an EIR.

Certified EIR Conclusions: The Certified EIR substantiates that the potential for the Original Project to substantially increase transportation/traffic hazards due to a design feature or incompatible uses would be less-than-significant.

The Original Project design concepts do not propose or require hazardous design features or incompatible uses.

To ensure appropriate design and implementation of all access circulation improvements; to include locations and design of proposed driveways, Original Project final designs would be subject to review and approval by the City prior to the issuance of development permits. In addition, Police and Fire Department representatives would review the Original Project plans to ensure that emergency access is provided consistent with Department(s) requirements.

Additionally, a construction traffic management plan would be implemented to ensure that potential short-term traffic detours and traffic disruption during construction activities would not result in transportation/traffic hazards.

Based on the preceding, the Certified EIR concluded that the potential for the Original Project to substantially increase transportation/traffic hazards due to a design feature or incompatible uses would be less-than-significant (Certified EIR, pp. 4.2-24, 4.2-25).

Certified EIR Mitigation Measures: None.

Modified Project: The Modified Project design concepts do not propose or require hazardous design features or incompatible uses.

To ensure appropriate design and implementation of all access circulation improvements; to include locations and design of proposed driveways, Modified Project final designs would be subject to review and approval by the City prior to the issuance of development permits. In addition, Police and Fire Department representatives would review the Original Project plans to ensure that emergency access is provided consistent with Department(s) requirements.

Additionally, a construction traffic management plan would be implemented to ensure that potential short-term traffic detours and traffic disruption during construction activities would not result in transportation/traffic hazards.

Based on the preceding, as with the Original Project, the potential for the Modified Project to substantially increase transportation/traffic hazards due to a design feature or incompatible uses would be less-than-significant.

Modified Project Mitigation Measures: None.

Summary

As substantiated by the preceding discussions, no new or substantially increased transportation/traffic impacts would occur as a result of the Modified Project. Accordingly, there are determined to be no changes or new information associated with the Modified Project requiring preparation of an EIR.

Sources: City of Pomona General Plan; Hyatt Hotel Project Environmental Impact Report, SCH No. 2016011079 (Certified EIR); Pomona Hyatt Hotel Focused Traffic Assessment (Urban Crossroads Inc.) May 11, 2018; Preliminary Plans for Pomona Hyatt Hotel Project, Revised March 2018.

17. 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: | Substantial Change in Project Requiring Major MND Revisions | Substantial Change in Circumstances Requiring Major MND Revisions | New Information Showing Greater Significant Effects than Previous MND | New Information Showing Ability to Reduce but not Eliminate Significant Effects in Previous MND | No Changes or New Information Requiring Preparation of an MND or EIR | No Impact |
|---|--|--|---|---|--|--------------|
| a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or | | | | | х | |

| 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: | Substantial Change in Project Requiring Major MND Revisions | Substantial Change in Circumstances Requiring Major MND Revisions | New Information Showing Greater Significant Effects than Previous MNID | New Information Showing Ability to Reduce but not Eliminate Significant Effects in Previous MND | No Changes or New Information Requiring Preparation of an MND or EIR | No Impact |
|---|--|--|--|---|--|--------------|
| 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. | | | | | X | |

Substantiation:

a, b) No Changes or New Information Requiring Preparation of an EIR.

Certified EIR Conclusions: The Certified EIR IS substantiates that the potential for the Original Project to cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 would be less-than-significant.

There are no known Tribal Cultural Resources within the subject site. Nor is it anticipated that the Original Project would adversely affect off-site Tribal Cultural Resources. Additionally, as noted in the Certified EIR IS, Tribal Resources consultation with requesting Tribes would be accomplished as provided for under AB 52, Gatto. Native Americans: California Environmental Quality Act. No potentially affected tribes have requested consultation regarding the Original Project.

On this basis, the Certified EIR IS concluded that the potential for the Original Project to cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 would be less-than-significant.

Certified EIR Mitigation Measures: None.

Modified Project: Evaluation of impacts to Tribal Cultural Resources (TCRs) pursuant to *AB 52, Gatto. Native Americans: California Environmental Quality Act* applies only to CEQA projects that are required to file a Notice of Preparation for an Environmental Impact Report, or Notice of Intent to Adopt a Negative Declaration or Mitigated Negative Declaration. Because the Modified Project would not be required to file any of the mentioned documents, potential impacts to TCRs is not applicable within the context of this Addendum analysis.

Modified Project Mitigation Measures: None.

Summary

As substantiated by the preceding discussions, no new or substantially increased tribal cultural resources impacts would occur as a result of the Modified Project. Accordingly, there are determined to be no changes or new information associated with the Modified Project requiring preparation of an EIR.

Sources: AB 52, *Gatto. Native Americans: California Environmental Quality Act*; City of Pomona General Plan EIR; *Hyatt Hotel Project Environmental Impact Report*, SCH No. 2016011079 (Certified EIR); Preliminary Plans for Pomona Hyatt Hotel Project, Revised March 2018.

18. UTILITIES AND SERVICE SYSTEMS

| | ould the project: | Substantial Change in Project Requiring Major EIR Revisions | Substantial Change in Circumstances Requiring Major EIR Revisions | New Information Showing Greater Significant Effects than Previous EIR | New Information Showing Ability to Reduce but not Eliminate Significant Effects in Previous EIR | No Changes or New Information Requiring Preparation of an EIR | No Impact |
|----|--|--|--|---|---|--|--------------|
| a) | Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board? | | | | | X | |
| b) | Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects? | | | | | Х | |
| c) | Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significance environmental effects? | | | | | Х | |
| d) | Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed? | | | | | Х | |
| e) | Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments? | | | | | Х | |
| f) | Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs? | | | | | Х | |
| g) | Comply with federal, state, and local statutes and regulations related to solid waste? | | | | | Х | |

Substantiation:

a) No Changes or New Information Requiring Preparation of an EIR.

Certified EIR Conclusions: The Certified EIR IS substantiates that the potential for the Original Project to exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board would be less-than-significant.

The Los Angeles County Sanitation Districts (LACSD, District) would be responsible for the treatment of additional wastewater generated by the Original Project. The City of Pomona provides local sewer lines for wastewater conveyance to the District's Pomona Water Reclamation Plant (PWRP). Wastewater generated by the Original Project would be typical of commercial/retail generators, and would not require treatment beyond that provided by existing LACSD facilities. Moreover, the Original Project would be developed and operated in compliance with the regulations of the City and the standards of the Los Angeles Regional Water Quality Control Board (LARWQCB). As such, wastewater generated by the Original Project would not cause or result in exceedance of the wastewater treatment requirements of the LARWQCB.

Based on the preceding, the Certified EIR IS concluded that the potential for the Original Project to exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board would be less-than-significant (Certified EIR IS, p. 3-44).

Certified EIR Mitigation Measures: None.

Modified Project: The Los Angeles County Sanitation Districts (LACSD, District) would be responsible for the treatment of additional wastewater generated by the Modified Project. The City of Pomona provides local sewer lines for wastewater conveyance to the District's Pomona Water Reclamation Plant (PWRP). Wastewater generated by the Modified Project would be typical of commercial/retail/residential generators, and would not require treatment beyond that provided by existing LACSD facilities. Moreover, the Modified Project would be developed and operated in compliance with the regulations of the City and the standards of the Los Angeles Regional Water Quality Control Board

(LARWQCB). As such, wastewater generated by the Modified Project would not cause or result in exceedance of the wastewater treatment requirements of the LARWQCB.

Based on the preceding, as with the Original Project, the potential for the Modified Project to exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board would be less-than-significant.

Modified Project Mitigation Measures: None.

b) No Changes or New Information Requiring Preparation of an EIR.

Certified EIR Conclusions: The Certified EIR IS substantiates that the potential for the Original Project to require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects would be less-than-significant.

Water Treatment

Treated water would be provided to the Original Project via various existing facilities that currently serve the City. No additional or non-standard treatment is required to specifically meet the Original Project's water demands. Water service and connection fees paid by the Applicant and other water customers act to fund area water treatment facilities such that treatment capacities and capabilities keep pace with or surpass treatment demands.

Wastewater Treatment

Wastewater treatment services for the Original Project would be provided by the LACSD. The Applicant would pay applicable sewer connection and service fees, which act to fund City and LACSD wastewater collection and treatment system improvement plans, operations, and maintenance such that treatment capacities and capabilities keep pace with or surpass treatment demands. The LACSD, as a regional wastewater treatment provider, would determine when and in what manner treatment facilities will be constructed.

Based on the preceding, the Certified EIR IS concluded that the potential for the Original Project to require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects would be less-than-significant (Certified EIR IS, pp. 3-45, 3-46).

Certified EIR Mitigation Measures: None.

Modified Project:

Water Treatment

Treated water would be provided to the Modified Project via various existing facilities that currently serve the City. No additional or non-standard treatment is required to specifically meet the Modified Project's water demands. Water service and connection fees paid by the Applicant and other water customers act to fund area water treatment facilities such that treatment capacities and capabilities keep pace with or surpass treatment demands.

Wastewater Treatment

Wastewater treatment services for the Modified Project would be provided by the LACSD. The Applicant would pay applicable sewer connection and service fees, which act to fund City and LACSD wastewater collection and treatment system improvement plans, operations, and maintenance such that treatment capacities and capabilities keep pace with or surpass treatment demands. The LACSD, as a regional wastewater treatment provider, would determine when and in what manner treatment facilities will be constructed.

Based on the preceding, as with the Original Project, the potential for the Modified Project to require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects would be less-than-significant.

Modified Project Mitigation Measures: None.

c) No Changes or New Information Requiring Preparation of an EIR.

Certified EIR Conclusions: The Certified EIR IS substantiates that the potential for the Original Project to require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects would be less-than-significant.

Development-specific management and conveyance of storm water is adequately and appropriately addressed through local connections to existing municipal stormwater drainage systems. No substantive improvement or expansion of stormwater management systems would be required to support the Original Project.

Stormwater runoff from the developed site would be collected and treated prior to discharge to the municipal stormwater system. The Original Project would be developed and operated in compliance with all applicable City and LARWQCB regulations and standards.

Based on the preceding, the Certified EIR IS concluded that the potential for the Original Project to require or result in new or expanded stormwater drainage facilities, the construction of which could result in adverse environmental effects would be less-than-significant (Certified EIR IS, p. 3-46).

Certified EIR Mitigation Measures: None.

Modified Project: Development-specific management and conveyance of stormwater is adequately and appropriately addressed through local connections to existing municipal stormwater drainage systems. No substantive improvement or expansion of stormwater management systems would be required to support the Modified Project.

Stormwater runoff from the developed site would be collected and treated prior to discharge to the municipal stormwater system. The Modified Project would be developed and operated in compliance with all applicable City and LARWQCB regulations and standards.

Based on the preceding, as with the Original Project, the potential for the Modified Project to require or result in new or expanded stormwater drainage facilities, the construction of which could result in adverse environmental effects would be less-than-significant.

Modified Project Mitigation Measures: None.

d) No Changes or New Information Requiring Preparation of an EIR.

Certified EIR Conclusions: The Certified EIR IS substantiates that the potential for the Original Project to adversely affect water supplies would be less-than-significant.

The City of Pomona 2010 Urban Water Management Plan (UWMP) comprehensively addresses water demand and supply throughout the City through the year 2035. Development proposed by the Original Project is consistent with development of the area envisioned under the Pomona General Plan. As such, the Original Project water demands are reflected in the UWMP.

As documented within the General Plan EIR, water supplies available to the City have been determined sufficient to meet all existing customer demands, and anticipated future customer demands (including the Original Project's demands) based on General Plan buildout under normal, single-dry year, and extended drought conditions (General Plan EIR, p. 4.14-6). Even in the event of water supply shortages or water emergencies, the City has water shortage contingency plans in place which ensure provision of priority water services to all existing and anticipated customers, including the Original Project. The Original Project would be designed in compliance with all applicable water conservation programs and policies implemented by the City of Pomona. The scope of the Original Project (75,000 square feet of office uses; 200-room hotel) does not require preparation of a Water Supply Assessment (WSA).

Based on the preceding, the Certified EIR IS concluded that the potential for the Original Project to adversely affect water supplies would be less-than-significant (Certified EIR IS, pp. 3-46, 3-47).

Certified EIR Mitigation Measures: None.

Modified Project: Development proposed by the Modified Project is consistent with development of the area envisioned under the Pomona General Plan. As such, the

Modified Project water demands are reflected in the UWMP.

As documented within the General Plan EIR, water supplies available to the City have been determined sufficient to meet all existing customer demands, and anticipated future customer demands (including the Modified Project's demands) based on General Plan buildout under normal, single-dry year, and extended drought conditions. Even in the event of water supply shortages or water emergencies, the City has water shortage contingency plans in place which ensure provision of priority water services to all existing and anticipated customers, including the Modified Project. The Modified Project would be designed in compliance with all applicable water conservation programs and policies implemented by the City of Pomona. The scope of the Original Project (+/- 47,000 square feet of fitness center uses; 210-room hotel; 95 apartments) does not require

Based on the preceding, as with the Original Project, the potential for the Modified Project to adversely affect water supplies would be less-than-significant.

Modified Project Mitigation Measures: None.

preparation of a WSA.

e) No Changes or New Information Requiring Preparation of an EIR.

Certified EIR Conclusions: The Certified EIR IS substantiates that the potential for the Original Project to exceed current or anticipated wastewater treatment capacities would be less-than-significant.

Development proposed by the Original Project is consistent with development of the area envisioned under the Pomona General Plan and as evaluated in the General Plan EIR.

The Original Project would result in an increased demand for wastewater treatment. The General Plan EIR determined that wastewater treatment demands associated with the buildout of the General Plan were less-than-significant (General Plan EIR, pp. 4.14-10, 4.14-11). The wastewater increment generated by the Original Project is reflected in this determination.

Based on the preceding, the Certified EIR IS concluded that the potential for the Original Project to exceed current or anticipated wastewater treatment capacities would be less-than-significant (Certified EIR IS, p. 3-47).

Certified EIR Mitigation Measures: None.

Modified Project: Development proposed by the Modified Project is consistent with development of the area envisioned under the Pomona General Plan and as evaluated in the General Plan EIR.

The Modified Project would result in an increased demand for wastewater treatment. The General Plan EIR determined that wastewater treatment demands associated with the buildout of the General Plan were less-than-significant (General Plan EIR, pp. 4.14-10, 4.14-11). The wastewater increment generated by the Modified Project is reflected in this determination.

Based on the preceding, as with the Original Project, the potential for the Modified Project to exceed current or anticipated wastewater treatment capacities would be less-than-significant.

Modified Project Mitigation Measures: None.

f, g) No Changes or New Information Requiring Preparation of an EIR.

Certified EIR Conclusions: The Certified EIR IS substantiates that the potential for the Original Project to exceed current or anticipated landfill capacities, or fail to comply with

applicable Federal, State, and local statutes and regulations related to solid waste would be less-than-significant.

Development proposed by the Original Project is consistent with development of the area envisioned under the Pomona General Plan and as evaluated in the General Plan EIR. The City of Pomona is currently served by numerous landfills. Waste generated by the Project would likely be disposed at either El Sobrante Landfill in Riverside County, or the Mid-Valley Sanitary Landfill in San Bernardino County. The General Plan EIR concludes that adequate capacity exists at landfills serving the City to accommodate development under General Plan buildout conditions; and further that buildout pursuant to the General Plan would comply with applicable Federal, State, and local statutes and regulations related to solid waste (General Plan EIR, pp. 4.14-18, 4.14-19). The solid waste increment generated by the Original Project is reflected in these determinations.

Based on the preceding, the Certified EIR IS concluded that the potential for the Original Project to exceed current or anticipated landfill capacities, or fail to comply with applicable Federal, State, and local statutes and regulations related to solid waste would be less-than-significant.

Certified EIR Mitigation Measures: None.

Modified Project: Development proposed by the Modified Project is consistent with development of the area envisioned under the Pomona General Plan and as evaluated in the General Plan EIR. The City of Pomona is currently served by numerous landfills. Waste generated by the Project would likely be disposed at either El Sobrante Landfill in Riverside County, or the Mid-Valley Sanitary Landfill in San Bernardino County. The General Plan EIR concludes that adequate capacity exists at landfills serving the City to accommodate development under General Plan buildout conditions; and further that buildout pursuant to the General Plan would comply with applicable Federal, State, and local statutes and regulations related to solid waste. The solid waste increment generated by the Modified Project is reflected in these determinations.

Based on the preceding, as with the Original Project, the potential for the Modified Project to exceed current or anticipated landfill capacities, or fail to comply with applicable Federal, State, and local statutes and regulations related to solid waste would be less-than-significant.

Modified Project Mitigation Measures: None.

Summary

As substantiated by the preceding discussions, no new or substantially increased utilities and service systems impacts would occur as a result of the Modified Project. Accordingly, there are determined to be no changes or new information associated with the Modified Project requiring preparation of an EIR.

Sources: City of Pomona General Plan; City of Pomona General Plan EIR; Hyatt Hotel Project Environmental Impact Report, SCH No. 2016011079 (Certified EIR); Preliminary Plans for Pomona Hyatt Hotel Project, Revised March 2018.

19. MANDATORY FINDINGS OF SIGNIFICANCE

| | Substantial Change in Project Requiring Major EIR | Substantial Change in Circumstances Requiring Major EIR | New Information Showing Greater Significant Effects than | New Information Showing Ability to Reduce but not Eliminate Significant Effects in | No Changes or New Information Requiring Preparation of | No |
|---|---|---|--|--|--|--------|
| Does the project: | Revisions | Revisions | Previous EIR | Previous EIR | an EIR | Impact |
| a) Have the potential to 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, 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? | | | | | Х | |

| | | Substantial Change in Project Requiring Major EIR | Substantial Change in Circumstances Requiring Major EIR | New Information Showing Greater Significant Effects than | New Information Showing Ability to Reduce but not Eliminate Significant Effects in | No Changes or New Information Requiring Preparation of | No |
|----|---|---|---|--|--|--|--------|
| | es the project: | Revisions | Revisions | Previous EIR | Previous EIR | an EIR | Impact |
| b) | Have impacts that are individually | | | | | | |
| | limited, but cumulatively | | | | | | |
| | considerable? ("Cumulatively | | | | | | |
| | considerable" means that the | | | | | | |
| | incremental effects of a project are | | | | | X | |
| | considerable when viewed in | | | | | ^ | |
| | connection with the effects of the past | | | | | | |
| | projects, the effects of other current | | | | | | |
| | projects, and the effects of probable | | | | | | |
| | future projects.) | | | | | | |
| c) | Have environmental effects which will | | | | | | |
| | cause substantial adverse effects on | | | | | v | |
| | human beings, either directly or | | | | | X | |
| | indirectly? | | | | | | |

a – c) *No Changes or New Information Requiring Preparation of an EIR.*As substantiated by the preceding discussions presented herein:

- a) There are no changes or new information requiring preparation of an EIR based on the Modified Project's potential to: 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, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory;
- b) There are no changes or new information requiring preparation of an EIR based on the Modified Project's potential to: result in impacts that are individually limited, but cumulatively considerable; and
- c) There are no changes or new information requiring preparation of an EIR based on the Modified Project's potential to have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly.



May 11, 2018

Mr. Ross Geller Applied Planning, Inc. 11762 De Palma Road, 1-C 310 Corona, CA 92883

SUBJECT: POMONA HYATT HOTEL FOCUSED AIR QUALITY AND GREENHOUSE GAS MEMORANDUM

Dear Mr. Ross Geller:

This focused air quality impact analysis (AQIA) and greenhouse gas assessment (GHGA) memorandum evaluates potential air quality and greenhouse gas emissions impacts of the proposed Modified Project in the context of the previous 2016 AQIA and GHGA prepared as one component of the Certified Pomona Hyatt Hotel Project Environmental Impact Report (Certified EIR). This analysis employs the latest version of CalEEMod 2016.3.2 and the latest Institute of Transportation Engineers (ITE) Trip Generation Manual (10th Edition, 2017).

The Modified Project (hereafter referred to as the Project) evaluated herein comprises a 215-room hotel, 95 apartment units, and 46,273 square foot health/fitness club. The 2016 AQIA and GHGA had previously evaluated a 75,000 square foot office building with a 200-room hotel.

PROJECT-RELATED AIR QUALITY AND GREENHOUSE GASES

Land uses such as the Project affect air quality through construction-source and operational-source emissions.

On October 17, 2017, the SCAQMD in conjunction with the California Air Pollution Control Officers Association (CAPCOA) and other California air districts, released the latest version of the California Emissions Estimator Model™ (CalEEMod™) 2016.3.2. The purpose of this model is to more accurately calculate construction-source and operational-source criteria pollutant (NO_x, VOC, PM₁₀, PM_{2.5}, SO_x, and CO) and greenhouse gas (GHG) emissions from direct and indirect sources; and quantify applicable air quality and GHG reductions achieved from mitigation measures. Accordingly, the latest version of CalEEMod™ is employed in evaluation of the Project's potential air quality/GHG emissions impacts. Air Quality outputs from the CalEEMod modeling runs are provided in Attachment "A" and greenhouse gas outputs from the modeling runs are provided in Attachment "B".



AIR QUALITY

OPERATIONAL EMISSIONS

Operational activities associated with the Project would result in emissions of NO_x , VOC, PM_{10} , $PM_{2.5}$, SO_x , and CO. Operational related emissions are expected from the following primary sources: area source emissions, energy source emissions, and mobile source emissions.

Project mobile source emissions impacts are dependent on both overall daily vehicle trip generation and the effect of the Project on peak hour traffic volumes and traffic operations in the vicinity of the Project. The Project related operational air quality impacts derive primarily from vehicle trips generated by the Project. Project trip characteristics available from the report, <u>Pomona Hyatt Hotel Focused Traffic Assessment</u> (Urban Crossroads) May 11, 2018 were utilized in this analysis.

The estimated operational-source emissions for the Project are summarized on Table 1. Detailed operational model outputs are presented in Attachment A. As shown at Table 1, Project operational-source emissions would not exceed applicable SCAQMD regional thresholds.

TABLE 1: SUMMARY OF PEAK OPERATIONAL EMISSIONS

| On a washing and A astinishing Common Common Common | | Er | missions (po | unds per da | ıy) | | | | | | |
|---|----------------------------|-------|--------------|-----------------|------------------|-------------------|--|--|--|--|--|
| Operational Activities – Summer Scenario | voc | NOx | со | SO _x | PM ₁₀ | PM _{2.5} | | | | | |
| Area Source | 10.48 | 1.67 | 8.56 | 0.01 | 0.17 | 0.17 | | | | | |
| Energy Source | 0.28 | 2.56 | 2.01 | 0.02 | 0.20 | 0.20 | | | | | |
| Mobile Source | 6.73 | 29.71 | 79.36 | 0.25 | 19.01 | 5.25 | | | | | |
| Total Maximum Daily Emissions | 17.49 | 33.93 | 89.94 | 0.27 | 19.37 | 5.62 | | | | | |
| SCAQMD Regional Threshold | 75 | 100 | 550 | 150 | 150 | 55 | | | | | |
| Threshold Exceeded? | NO | NO | NO | NO | NO | NO | | | | | |
| On austinus I Astinities Minter Connecie | Emissions (pounds per day) | | | | | | | | | | |
| Operational Activities – Winter Scenario | voc | NOx | со | SO _x | PM ₁₀ | PM _{2.5} | | | | | |
| Area Source | 10.48 | 1.67 | 8.56 | 0.01 | 0.17 | 0.17 | | | | | |
| Energy Source | 0.28 | 2.56 | 2.01 | 0.01 | 0.20 | 0.20 | | | | | |
| Mobile Source | 6.54 | 30.33 | 79.60 | 0.24 | 19.01 | 5.26 | | | | | |
| Total Maximum Daily Emissions | 17.30 | 34.56 | 87.17 | 0.26 | 19.37 | 5.62 | | | | | |
| SCAQMD Regional Threshold | 75 | 100 | 550 | 150 | 150 | 55 | | | | | |
| Threshold Exceeded? | NO | NO | NO | NO | NO | NO | | | | | |



COMPARISON TO THE IMPACTS DISCLOSED IN THE 2016 AIR QUALITY IMPACT ANALYSIS

This section summarizes the Project's emissions impacts compared to the emissions totals and impacts previously identified in the 2016 AQIA.

The 2016 AQIA had previously evaluated a 75,000 square foot office building with a 200-room hotel and did not identify any potentially significant operational-source air quality impacts. The results of this focused operational air quality assessment are compared to the 2016 AQIA to determine if there would be new or substantively increased impacts under the Project. Table 2 presents a comparison of 2016 AQIA results versus estimated emissions that would result from the Project. Results of the assessment indicate net decreases in VOC and CO, a minimal increase in NO_x, PM₁₀, and PM_{2.5}, and no change in SO_x emissions. Based on the preceding, the Project would not result in any new significant or substantively increased operational-source air quality impacts than were identified and addressed in the Certified EIR.

TABLE 2: 2016 AIR QUALITY STUDY VS NEW PROPOSED MIXED USES

| Operational Activities | | | Emissions (| oounds per da | у) | | | | | | | | | |
|--|-------|----------------|-------------|-----------------|------------------|-------------------|--|--|--|--|--|--|--|--|
| Operational Activities | voc | NOx | СО | SO _x | PM ₁₀ | PM _{2.5} | | | | | | | | |
| | 2 | 2016 Air Quali | ty Study | | | | | | | | | | | |
| Total Maximum Daily Emissions 23.76 28.69 107.59 0.27 18.39 5.27 | | | | | | | | | | | | | | |
| SCAQMD Regional Threshold | 55 | 55 | 550 | 150 | 150 | 55 | | | | | | | | |
| Threshold Exceeded? | NO | NO | NO | NO | NO | NO | | | | | | | | |
| | | Proposed P | roject | | | | | | | | | | | |
| Total Maximum Daily Emissions | 17.49 | 33.93 | 89.94 | 0.27 | 19.37 | 5.62 | | | | | | | | |
| SCAQMD Regional Threshold | 55 | 55 | 550 | 150 | 150 | 55 | | | | | | | | |
| Threshold Exceeded? | NO | NO | NO | NO | NO | NO | | | | | | | | |
| Net Change ^{1,2} | -6.27 | 13.24 | -17.65 | 0.00 | 0.98 | 0.35 | | | | | | | | |
| New Significant Impacts? | NO | NO | NO | NO | NO | NO | | | | | | | | |

² Project-related operational CO impacts derive predominantly from mobile sources. Emission factors for vehicles decrease as time passes and as the analysis year increases due to emission regulations becoming more stringent and the natural turnover of older fleets that are replaced by newer fleets that are less polluting. Thus, CO emissions resulting from the new proposed Project mix has decreased due to change in Opening Year from 2018 to 2020. The reduction is specific to emissions of CO and the reduction does not apply to other emissions calculated in CalEEMod.



¹ VOC emissions consist predominantly of emissions from consumer products. Consumer product VOC emissions is driven by the emissions factor which based on the VOC content of the product which varies year. As such, the decrease in VOC emissions is due to the change in the Projects Opening Year from 2018 to 2020.

GREENHOUSE GAS

EMISSIONS SUMMARY

The methodology used to determine GHG impacts comports with the methodology used in the 2016 GHGA. It should be noted that this focused greenhouse gas assessment evaluates the Project's potential GHG emissions impacts employing the latest version of CalEEMod v.2016.3.2 and the latest Institute of Transportation Engineers (ITE) <u>Trip Generation Manual</u> (10th Edition, 2017). As summarized at Table 3, the Project GHG emissions in 2020 would be reduced by approximately 20.29% when compared to 2010 Baseline GHG emissions as defined in the City of Pomona Green Plan (Green Plan). The Project reduction in GHG emissions would therefore comply the local responsibility of a minimum 15 percent reduction in Baseline GHG emissions by the year 2020 established under the Green Plan. Compliance with local GHG emissions reduction plans and programs such as that established under the Green Plan demonstrates conformance to broader statewide GHG emissions reduction goals and strategies. It is noted further that the Project would be consistent with development allowed and anticipated under the City of Pomona General Plan; and that the Project's potential GHG emissions impacts are reflected in the conclusions of the General Plan EIR. The City of Pomona General Plan EIR concluded that buildout of the City pursuant to the General Plan would result in less-than-significant GHG emissions impacts (General Plan EIR, p. 21, et al.). The Project GHG emissions impacts would similarly be less-than-significant.

Based on the preceding, the Project would not result in any new significant or substantively increased GHG emissions impacts than were identified and addressed in the Certified EIR.

TABLE 3: SUMMARY OF GHG EMISSIONS FOR 2010 BASELINE VS 2020 PROJECT

| Emission Source | | sions Levels by Year c Tons Per Year) |
|---|----------|--|
| | 2010 BAU | 2020 Project |
| Amortized Construction-Source GHG Emissions | 38.75 | 38.75 |
| Area | 24.60 | 24.59 |
| Energy Use | 1,453.06 | 1,210.24 |
| Mobile Sources | 4,248.95 | 3,290.36 |
| Waste | 213.81 | 213.81 |
| Water Usage | 93.11 | 62.19 |
| Total | 6,072.28 | 4,839.94 |
| Project GHG Emissions Reduction over BAU | | 20.29% |
| Green Plan GHG Emissions Reduction Target | | 15.0% |
| Consistent with Green Plan GHG Emissions Reduction Target | | YES |



Mr. Ross Geller May 11, 2018 Page 5 of 5

If you have any questions, please contact me directly at (949) 336-5987.

Respectfully submitted,

URBAN CROSSROADS, INC.

Haseeb Qureshi, Senior Associate

ATTACHMENT "A"



CalEEMod Version: CalEEMod.2016.3.2 Page 1 of 15 Date: 5/10/2018 12:57 PM

Pomona Hyatt Place (Operations) - Los Angeles-South Coast County, Summer

Pomona Hyatt Place (Operations)

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|---------------------|--------|---------------|-------------|--------------------|------------|
| Hotel | 215.00 | Room | 7.17 | 312,180.00 | 0 |
| Apartments Mid Rise | 95.00 | Dwelling Unit | 2.50 | 95,000.00 | 272 |
| Health Club | 46.27 | 1000sqft | 1.06 | 46,273.00 | 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
 466.91
 CH4 Intensity
 0.029
 N20 Intensity
 0.006

 (lb/MWhr)
 (lb/MWhr)
 (lb/MWhr)
 (lb/MWhr)

1.3 User Entered Comments & Non-Default Data

CalEEMod Version: CalEEMod.2016.3.2 Page 2 of 15 Date: 5/10/2018 12:57 PM

Pomona Hyatt Place (Operations) - Los Angeles-South Coast County, Summer

Project Characteristics - CPUC GHG calculator version 3c, worksheet tab "CO2 Allocations," cells AH/AQ 35-44

Land Use -

Construction Phase - Operations Run Only.

Off-road Equipment - Operations Run Only.

Trips and VMT - Operations Run Only.

On-road Fugitive Dust - Operations Run Only.

Vehicle Trips - Trip Rates based on information provided in the Focused Traffic Assessment and ITE 10th Edition (2017)

Woodstoves - Operations Run Only.

Energy Use -

Mobile Land Use Mitigation -

Water Mitigation -

Pomona Hyatt Place (Operations) - Los Angeles-South Coast County, Summer

Date: 5/10/2018 12:57 PM

Page 3 of 15

| Table Name | Column Name | Default Value | New Value | | |
|---------------------------|----------------------------|---------------|-----------|--|--|
| tblConstructionPhase | NumDays | 20.00 | 1.00 | | |
| tblConstructionPhase | PhaseEndDate | 6/28/2019 | 6/3/2019 | | |
| tblFireplaces | NumberGas | 80.75 | 95.00 | | |
| tblFireplaces | NumberNoFireplace | 9.50 | 0.00 | | |
| tblFireplaces | NumberWood | 4.75 | 0.00 | | |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 3.00 | 0.00 | | |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 | | |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 2.00 | 0.00 | | |
| tblOnRoadDust | HaulingPercentPave | 100.00 | 0.00 | | |
| tblOnRoadDust | VendorPercentPave | 100.00 | 0.00 | | |
| tblOnRoadDust | WorkerPercentPave | 100.00 | 0.00 | | |
| tblProjectCharacteristics | CO2IntensityFactor | 702.44 | 466.91 | | |
| tblVehicleTrips | ST_TR | 6.39 | 0.86 | | |
| tblVehicleTrips | SU_TR | 5.86 | 0.86 | | |
| tblVehicleTrips | WD_TR | 6.65 | 3.44 | | |
| tblVehicleTrips | WD_TR | 32.93 | 34.50 | | |
| tblVehicleTrips | WD_TR | 8.17 | 8.36 | | |
| tblWoodstoves | NumberCatalytic | 4.75 | 0.00 | | |
| tblWoodstoves | NumberNoncatalytic | 4.75 | 0.00 | | |

2.0 Emissions Summary

CalEEMod Version: CalEEMod.2016.3.2 Page 4 of 15 Date: 5/10/2018 12:57 PM

Pomona Hyatt Place (Operations) - Los Angeles-South Coast County, Summer

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

| | ROG | NOx | СО | 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 | 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 | |
| Maximum | 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 | |

Mitigated Construction

| | ROG | NOx | СО | 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 | 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 |
| Maximum | 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 |

| | ROG | NOx | СО | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | CO2e |
|----------------------|------|------|------|------|------------------|-----------------|---------------|-------------------|------------------|----------------|----------|----------|-----------|------|------|------|
| Percent Reduction | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

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2.2 Overall Operational Unmitigated Operational

| | ROG | NOx | СО | 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 | 10.4780 | 1.6671 | 8.5611 | 0.0105 | | 0.1708 | 0.1708 | | 0.1708 | 0.1708 | 0.0000 | 2,025.934 4 | 2,025.934 4 | 0.0525 | 0.0369 | 2,038.237 1 | |
| Energy | 0.2835 | 2.5571 | 2.0147 | 0.0155 | | 0.1959 | 0.1959 | | 0.1959 | 0.1959 | | 3,093.071 4 | 3,093.071 4 | 0.0593 | 0.0567 | 3,111.451 9 | |
| Mobile | 6.7257 | 29.7062 | 79.3598 | 0.2485 | 18.7556 | 0.2494 | 19.0050 | 5.0198 | 0.2338 | 5.2536 | | 25,250.00 23 | 25,250.00 23 | 1.4205 | | 25,285.51 54 | |
| Total | 17.4872 | 33.9304 | 89.9356 | 0.2744 | 18.7556 | 0.6161 | 19.3717 | 5.0198 | 0.6005 | 5.6203 | 0.0000 | 30,369.00 80 | 30,369.00 80 | 1.5323 | 0.0936 | 30,435.20 44 | |

Mitigated Operational

| | ROG | NOx | СО | 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/d | day | | | | | | | lb/d | lay | | |
| Area | 10.4780 | 1.6671 | 8.5611 | 0.0105 | | 0.1708 | 0.1708 | | 0.1708 | 0.1708 | 0.0000 | 2,025.934 4 | 2,025.934 4 | 0.0525 | 0.0369 | 2,038.237 1 |
| Energy | 0.2835 | 2.5571 | 2.0147 | 0.0155 | | 0.1959 | 0.1959 | | 0.1959 | 0.1959 | | 3,093.071 4 | 3,093.071 4 | 0.0593 | 0.0567 | 3,111.451 9 |
| Mobile | 6.4323 | 27.8149 | 71.8014 | 0.2212 | 16.5424 | 0.2228 | 16.7652 | 4.4275 | 0.2088 | 4.6363 | | 22,484.92 27 | 22,484.92 27 | 1.2845 | | 22,517.03 53 |
| Total | 17.1938 | 32.0390 | 82.3772 | 0.2472 | 16.5424 | 0.5894 | 17.1319 | 4.4275 | 0.5755 | 5.0029 | 0.0000 | 27,603.92 84 | 27,603.92 84 | 1.3963 | 0.0936 | 27,666.72 44 |

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| | ROG | NOx | СО | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | CO2e |
|----------------------|------|------|------|------|------------------|-----------------|---------------|-------------------|------------------|----------------|----------|----------|-----------|------|------|------|
| Percent Reduction | 1.68 | 5.57 | 8.40 | 9.93 | 11.80 | 4.32 | 11.56 | 11.80 | 4.16 | 10.98 | 0.00 | 9.10 | 9.10 | 8.88 | 0.00 | 9.10 |

3.0 Construction Detail

Construction Phase

| Phas Numb | | Phase Type | Start Date | End Date | Num Days Week | Num Days | Phase Description |
|--------------|------------|------------|------------|----------|------------------|----------|-------------------|
| 1 | Demolition | Demolition | 6/1/2019 | 6/3/2019 | 5 | 1 | |

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

| Phase Name | Offroad Equipment Type | Amount | Usage Hours | Horse Power | Load Factor |
|------------|--------------------------|--------|-------------|-------------|-------------|
| Demolition | Excavators | 0 | 8.00 | 158 | 0.38 |
| Demolition | Concrete/Industrial Saws | 0 | 8.00 | 81 | 0.73 |
| Demolition | Rubber Tired Dozers | 0 | 8.00 | 247 | 0.40 |

Trips and VMT

| Phase Name | Offroad Equipment | Worker Trip | Vendor Trip | Hauling Trip | Worker Trip | Vendor Trip | Hauling Trip | Worker Vehicle | Vendor | Hauling |
|------------|-------------------|-------------|-------------|--------------|-------------|-------------|--------------|----------------|---------------|---------------|
| | Count | Number | Number | Number | Length | Length | Length | Class | Vehicle Class | Vehicle Class |
| Demolition | 0 | 0.00 | 0.00 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |

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3.1 Mitigation Measures Construction

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/d | day | | | | | | | lb/d | day | | |
| Off-Road | 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 |

Unmitigated Construction Off-Site

| | ROG | NOx | СО | 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/o | day | | | | | | | lb/d | 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 | 0.0000 | 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 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |

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3.2 Demolition - 2019

<u>Mitigated Construction On-Site</u>

| | 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/d | day | | | | | | | lb/c | lay | | |
| | 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 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |

Mitigated Construction Off-Site

| | ROG | NOx | СО | 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/d | day | | | | | | | lb/c | lay | | |
| 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 | 0.0000 | 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 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |

4.0 Operational Detail - Mobile

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4.1 Mitigation Measures Mobile

Increase Diversity

Improve Pedestrian Network

| | 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/d | day | | | | | | | lb/c | lay | | |
| Mitigated | 6.4323 | 27.8149 | 71.8014 | 0.2212 | 16.5424 | 0.2228 | 16.7652 | 4.4275 | 0.2088 | 4.6363 | | 22,484.92 27 | 22,484.92 27 | 1.2845 | | 22,517.03 53 |
| Unmitigated | 6.7257 | 29.7062 | 79.3598 | 0.2485 | 18.7556 | 0.2494 | 19.0050 | 5.0198 | 0.2338 | 5.2536 | | 25,250.00 23 | 25,250.00 23 | 1.4205 | | 25,285.51 54 |

4.2 Trip Summary Information

| | Aver | age Daily Trip Ra | ite | Unmitigated | Mitigated |
|---------------------|----------|-------------------|----------|-------------|------------|
| Land Use | Weekday | Saturday | Sunday | Annual VMT | Annual VMT |
| Apartments Mid Rise | 326.80 | 81.70 | 81.70 | 877,427 | 773,891 |
| Health Club | 1,596.42 | 965.72 | 1236.88 | 3,111,816 | 2,744,622 |
| Hotel | 1,797.40 | 1,760.85 | 1279.25 | 4,099,817 | 3,616,038 |
| Total | 3,720.62 | 2,808.27 | 2,597.83 | 8,089,060 | 7,134,551 |

4.3 Trip Type Information

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Pomona Hyatt Place (Operations) - Los Angeles-South Coast County, Summer

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| | | Miles | | | Trip % | | | Trip Purpos | e % |
|---------------------|------------|------------|-------------|------------|------------|-------------|---------|-------------|---------|
| Land Use | 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 |
| Apartments Mid Rise | 14.70 | 5.90 | 8.70 | 40.20 | 19.20 | 40.60 | 86 | 11 | 3 |
| Health Club | 16.60 | 8.40 | 6.90 | 16.90 | 64.10 | 19.00 | 52 | 39 | 9 |
| Hotel | 16.60 | 8.40 | 6.90 | 19.40 | 61.60 | 19.00 | 58 | 38 | 4 |

4.4 Fleet Mix

| Land Use | LDA | LDT1 | LDT2 | MDV | LHD1 | LHD2 | MHD | HHD | OBUS | UBUS | MCY | SBUS | MH |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| Apartments Mid Rise | 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 |
| Health Club | 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 |
| Hotel | 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

| | 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/d | day | | | | | | | lb/c | lay | | |
| | 0.2835 | 2.5571 | 2.0147 | 0.0155 | | 0.1959 | 0.1959 | | 0.1959 | 0.1959 | | 3,093.071 4 | 3,093.071 4 | 0.0593 | 0.0567 | 3,111.451 9 |
| Unmitigated | 0.2835 | 2.5571 | 2.0147 | 0.0155 | | 0.1959 | 0.1959 | | 0.1959 | 0.1959 | | 3,093.071 4 | 3,093.071 4 | 0.0593 | 0.0567 | 3,111.451 9 |

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5.2 Energy by Land Use - NaturalGas <u>Unmitigated</u>

| | NaturalGa s 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/d | day | | | | | | | lb/c | lay | | |
| Apartments Mid Rise | 3486.67 | 0.0376 | 0.3213 | 0.1367 | 2.0500e- 003 | | 0.0260 | 0.0260 | | 0.0260 | 0.0260 | | 410.1970 | 410.1970 | 7.8600e- 003 | 7.5200e- 003 | 412.6346 |
| Health Club | 2294.63 | 0.0248 | 0.2250 | 0.1890 | 1.3500e- 003 | | 0.0171 | 0.0171 | | 0.0171 | 0.0171 | | 269.9569 | 269.9569 | 5.1700e- 003 | 4.9500e- 003 | 271.5611 |
| Hotel | 20509.8 | 0.2212 | 2.0108 | 1.6890 | 0.0121 | | 0.1528 | 0.1528 | , | 0.1528 | 0.1528 | | 2,412.917 5 | 2,412.917 5 | 0.0463 | 0.0442 | 2,427.256 2 |
| Total | | 0.2835 | 2.5570 | 2.0147 | 0.0155 | | 0.1959 | 0.1959 | | 0.1959 | 0.1959 | | 3,093.071 4 | 3,093.071 4 | 0.0593 | 0.0567 | 3,111.451 9 |

Mitigated

| | NaturalGa s Use | ROG | NOx | СО | 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/d | day | | | | | | | lb/c | lay | | |
| Apartments Mid Rise | 3.48667 | 0.0376 | 0.3213 | 0.1367 | 2.0500e- 003 | | 0.0260 | 0.0260 | 1 1 1 | 0.0260 | 0.0260 | | 410.1970 | 410.1970 | 7.8600e- 003 | 7.5200e- 003 | 412.6346 |
| Health Club | 2.29463 | 0.0248 | 0.2250 | 0.1890 | 1.3500e- 003 | | 0.0171 | 0.0171 | , | 0.0171 | 0.0171 | | 269.9569 | 269.9569 | 5.1700e- 003 | 4.9500e- 003 | 271.5611 |
| Hotel | 20.5098 | 0.2212 | 2.0108 | 1.6890 | 0.0121 | | 0.1528 | 0.1528 | , | 0.1528 | 0.1528 | # | 2,412.917 5 | 2,412.917 5 | 0.0463 | 0.0442 | 2,427.256 2 |
| Total | | 0.2835 | 2.5570 | 2.0147 | 0.0155 | | 0.1959 | 0.1959 | | 0.1959 | 0.1959 | | 3,093.071 4 | 3,093.071 4 | 0.0593 | 0.0567 | 3,111.451 9 |

6.0 Area Detail

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6.1 Mitigation Measures Area

| | ROG | NOx | СО | 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/d | day | | | | | | | lb/c | lay | | |
| Mitigated | 10.4780 | 1.6671 | 8.5611 | 0.0105 | | 0.1708 | 0.1708 | | 0.1708 | 0.1708 | 0.0000 | 2,025.934 4 | 2,025.934 4 | 0.0525 | 0.0369 | 2,038.237 1 |
| Unmitigated | 10.4780 | 1.6671 | 8.5611 | 0.0105 | | 0.1708 | 0.1708 | | 0.1708 | 0.1708 | 0.0000 | 2,025.934 4 | 2,025.934 4 | 0.0525 | 0.0369 | 2,038.237 1 |

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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/d | day | | | | | | | lb/d | lay | | |
| Architectural Coating | 1.0732 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | 1 1 1 | 0.0000 |
| Consumer Products | 8.9784 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Hearth | 0.1844 | 1.5759 | 0.6706 | 0.0101 | | 0.1274 | 0.1274 | | 0.1274 | 0.1274 | 0.0000 | 2,011.764 7 | 2,011.764 7 | 0.0386 | 0.0369 | 2,023.719 6 |
| Landscaping | 0.2420 | 0.0912 | 7.8905 | 4.2000e- 004 | | 0.0433 | 0.0433 | 1 1 1 1 | 0.0433 | 0.0433 | | 14.1697 | 14.1697 | 0.0139 | 1 1 1 1 | 14.5175 |
| Total | 10.4780 | 1.6671 | 8.5611 | 0.0105 | | 0.1708 | 0.1708 | | 0.1708 | 0.1708 | 0.0000 | 2,025.934 4 | 2,025.934 4 | 0.0525 | 0.0369 | 2,038.237 1 |

Pomona Hyatt Place (Operations) - Los Angeles-South Coast County, Summer

6.2 Area by SubCategory

Mitigated

| | ROG | NOx | СО | 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/d | day | | | | | | | lb/d | day | | |
| Architectural Coating | 1.0732 | | | | | 0.0000 | 0.0000 | i i i | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Consumer Products | 8.9784 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 |
| Hearth | 0.1844 | 1.5759 | 0.6706 | 0.0101 | | 0.1274 | 0.1274 | | 0.1274 | 0.1274 | 0.0000 | 2,011.764 7 | 2,011.764 7 | 0.0386 | 0.0369 | 2,023.719 6 |
| Landscaping | 0.2420 | 0.0912 | 7.8905 | 4.2000e- 004 | | 0.0433 | 0.0433 | 1 | 0.0433 | 0.0433 | | 14.1697 | 14.1697 | 0.0139 | | 14.5175 |
| Total | 10.4780 | 1.6671 | 8.5611 | 0.0105 | | 0.1708 | 0.1708 | | 0.1708 | 0.1708 | 0.0000 | 2,025.934 4 | 2,025.934 4 | 0.0525 | 0.0369 | 2,038.237 1 |

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

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 |
|----------------|--------|-----------|-----------|-------------|-------------|-----------|

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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

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Pomona Hyatt Place (Operations) - Los Angeles-South Coast County, Winter

Pomona Hyatt Place (Operations)

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|---------------------|--------|---------------|-------------|--------------------|------------|
| Hotel | 215.00 | Room | 7.17 | 312,180.00 | 0 |
| Apartments Mid Rise | 95.00 | Dwelling Unit | 2.50 | 95,000.00 | 272 |
| Health Club | 46.27 | 1000sqft | 1.06 | 46,273.00 | 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
 466.91
 CH4 Intensity
 0.029
 N20 Intensity
 0.006

 (lb/MWhr)
 (lb/MWhr)
 (lb/MWhr)
 (lb/MWhr)

1.3 User Entered Comments & Non-Default Data

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Pomona Hyatt Place (Operations) - Los Angeles-South Coast County, Winter

Project Characteristics - CPUC GHG calculator version 3c, worksheet tab "CO2 Allocations," cells AH/AQ 35-44

Land Use -

Construction Phase - Operations Run Only.

Off-road Equipment - Operations Run Only.

Trips and VMT - Operations Run Only.

On-road Fugitive Dust - Operations Run Only.

Vehicle Trips - Trip Rates based on information provided in the Focused Traffic Assessment and ITE 10th Edition (2017)

Woodstoves - Operations Run Only.

Energy Use -

Mobile Land Use Mitigation -

Water Mitigation -

Pomona Hyatt Place (Operations) - Los Angeles-South Coast County, Winter

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| Table Name | Column Name | Default Value | New Value |
|---------------------------|----------------------------|---------------|-----------|
| tblConstructionPhase | NumDays | 20.00 | 1.00 |
| tblConstructionPhase | PhaseEndDate | 6/28/2019 | 6/3/2019 |
| tblFireplaces | NumberGas | 80.75 | 95.00 |
| tblFireplaces | NumberNoFireplace | 9.50 | 0.00 |
| tblFireplaces | NumberWood | 4.75 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 3.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 2.00 | 0.00 |
| tblOnRoadDust | HaulingPercentPave | 100.00 | 0.00 |
| tblOnRoadDust | VendorPercentPave | 100.00 | 0.00 |
| tblOnRoadDust | WorkerPercentPave | 100.00 | 0.00 |
| tblProjectCharacteristics | CO2IntensityFactor | 702.44 | 466.91 |
| tblVehicleTrips | ST_TR | 6.39 | 0.86 |
| tblVehicleTrips | SU_TR | 5.86 | 0.86 |
| tblVehicleTrips | WD_TR | 6.65 | 3.44 |
| tblVehicleTrips | WD_TR | 32.93 | 34.50 |
| tblVehicleTrips | WD_TR | 8.17 | 8.36 |
| tblWoodstoves | NumberCatalytic | 4.75 | 0.00 |
| tblWoodstoves | NumberNoncatalytic | 4.75 | 0.00 |

2.0 Emissions Summary

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Pomona Hyatt Place (Operations) - Los Angeles-South Coast County, Winter

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

| | ROG | NOx | СО | 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/d | day | | | | | | | lb/d | day | | |
| 2019 | 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 |
| Maximum | 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 |

Mitigated Construction

| | ROG | NOx | СО | 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/c | lay | | |
| 2019 | 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 |
| Maximum | 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 |

| | ROG | NOx | СО | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | CO2e |
|----------------------|------|------|------|------|------------------|-----------------|---------------|-------------------|------------------|----------------|----------|----------|-----------|------|------|------|
| Percent Reduction | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

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Pomona Hyatt Place (Operations) - 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/d | day | | | | | | | lb/d | day | | |
| Area | 10.4780 | 1.6671 | 8.5611 | 0.0105 | | 0.1708 | 0.1708 | | 0.1708 | 0.1708 | 0.0000 | 2,025.934 4 | 2,025.934 4 | 0.0525 | 0.0369 | 2,038.237 1 |
| Energy | 0.2835 | 2.5571 | 2.0147 | 0.0155 | | 0.1959 | 0.1959 | | 0.1959 | 0.1959 | | 3,093.071 4 | 3,093.071 4 | 0.0593 | 0.0567 | 3,111.451 9 |
| Mobile | 6.5430 | 30.3328 | 76.5971 | 0.2361 | 18.7556 | 0.2511 | 19.0067 | 5.0198 | 0.2355 | 5.2553 | | 23,998.52 66 | 23,998.52 66 | 1.4239 | | 24,034.12 33 |
| Total | 17.3045 | 34.5569 | 87.1730 | 0.2620 | 18.7556 | 0.6178 | 19.3734 | 5.0198 | 0.6021 | 5.6219 | 0.0000 | 29,117.53 23 | 29,117.53 23 | 1.5356 | 0.0936 | 29,183.81 23 |

Mitigated Operational

| | ROG | NOx | СО | 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/d | day | | | | | | | lb/d | lay | | |
| Area | 10.4780 | 1.6671 | 8.5611 | 0.0105 | | 0.1708 | 0.1708 | | 0.1708 | 0.1708 | 0.0000 | 2,025.934 4 | 2,025.934 4 | 0.0525 | 0.0369 | 2,038.237 1 |
| Energy | 0.2835 | 2.5571 | 2.0147 | 0.0155 | | 0.1959 | 0.1959 | | 0.1959 | 0.1959 | | 3,093.071 4 | 3,093.071 4 | 0.0593 | 0.0567 | 3,111.451 9 |
| Mobile | 6.2568 | 28.3304 | 69.7323 | 0.2101 | 16.5424 | 0.2245 | 16.7669 | 4.4275 | 0.2105 | 4.6379 | | 21,361.77 91 | 21,361.77 91 | 1.2916 | | 21,394.06 86 |
| Total | 17.0183 | 32.5545 | 80.3081 | 0.2360 | 16.5424 | 0.5911 | 17.1336 | 4.4275 | 0.5771 | 5.0046 | 0.0000 | 26,480.78 48 | 26,480.78 48 | 1.4033 | 0.0936 | 26,543.75 76 |

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Pomona Hyatt Place (Operations) - Los Angeles-South Coast County, Winter

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| | ROG | NOx | СО | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | CO2e |
|----------------------|------|------|------|------|------------------|-----------------|---------------|-------------------|------------------|----------------|----------|----------|-----------|------|------|------|
| Percent Reduction | 1.65 | 5.79 | 7.87 | 9.91 | 11.80 | 4.31 | 11.56 | 11.80 | 4.15 | 10.98 | 0.00 | 9.06 | 9.06 | 8.61 | 0.00 | 9.05 |

3.0 Construction Detail

Construction Phase

| Phase Numbe | Phase Name | Phase Type | Start Date | End Date | Num Days Week | Num Days | Phase Description |
|----------------|------------|------------|------------|----------|------------------|----------|-------------------|
| 1 | Demolition | Demolition | 6/1/2019 | 6/3/2019 | 5 | 1 | |

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

| Phase Name | Offroad Equipment Type | Amount | Usage Hours | Horse Power | Load Factor |
|------------|--------------------------|--------|-------------|-------------|-------------|
| Demolition | Excavators | 0 | 8.00 | 158 | 0.38 |
| Demolition | Concrete/Industrial Saws | 0 | 8.00 | 81 | 0.73 |
| Demolition | Rubber Tired Dozers | 0 | 8.00 | 247 | 0.40 |

Trips and VMT

| Phase Name | Offroad Equipment | Worker Trip | Vendor Trip | Hauling Trip | Worker Trip | Vendor Trip | Hauling Trip | Worker Vehicle | Vendor | Hauling |
|------------|-------------------|-------------|-------------|--------------|-------------|-------------|--------------|----------------|---------------|---------------|
| | Count | Number | Number | Number | Length | Length | Length | Class | Vehicle Class | Vehicle Class |
| Demolition | 0 | 0.00 | 0.00 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |

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Pomona Hyatt Place (Operations) - Los Angeles-South Coast County, Winter

3.1 Mitigation Measures Construction

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/d | day | | | | | | | lb/d | day | | |
| | 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 |

Unmitigated Construction Off-Site

| | ROG | NOx | СО | 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/o | day | | | | | | | lb/d | 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 | 0.0000 | 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 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |

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Pomona Hyatt Place (Operations) - Los Angeles-South Coast County, Winter

3.2 Demolition - 2019

<u>Mitigated Construction On-Site</u>

| | 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/d | day | | | | | | | lb/c | lay | | |
| | 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 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | - | 0.0000 |

Mitigated Construction Off-Site

| | ROG | NOx | СО | 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/d | day | | | | | | | lb/d | 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 | 0.0000 | 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 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | | 0.0000 |

4.0 Operational Detail - Mobile

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Pomona Hyatt Place (Operations) - Los Angeles-South Coast County, Winter

4.1 Mitigation Measures Mobile

Increase Diversity

Improve Pedestrian Network

| | 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/d | day | | | | lb/c | lay | | | | | |
| Mitigated | 6.2568 | 28.3304 | 69.7323 | 0.2101 | 16.5424 | 0.2245 | 16.7669 | 4.4275 | 0.2105 | 4.6379 | | 21,361.77 91 | 21,361.77 91 | 1.2916 | | 21,394.06 86 |
| Unmitigated | 6.5430 | 30.3328 | 76.5971 | 0.2361 | 18.7556 | 0.2511 | 19.0067 | 5.0198 | 0.2355 | 5.2553 | | 23,998.52 66 | 23,998.52 66 | 1.4239 | | 24,034.12 33 |

4.2 Trip Summary Information

| | Avei | age Daily Trip Ra | ite | Unmitigated | Mitigated |
|---------------------|----------|-------------------|----------|-------------|------------|
| Land Use | Weekday | Saturday | Sunday | Annual VMT | Annual VMT |
| Apartments Mid Rise | 326.80 | 81.70 | 81.70 | 877,427 | 773,891 |
| Health Club | 1,596.42 | 965.72 | 1236.88 | 3,111,816 | 2,744,622 |
| Hotel | 1,797.40 | 1,760.85 | 1279.25 | 4,099,817 | 3,616,038 |
| Total | 3,720.62 | 2,808.27 | 2,597.83 | 8,089,060 | 7,134,551 |

4.3 Trip Type Information

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Pomona Hyatt Place (Operations) - Los Angeles-South Coast County, Winter

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| | | Miles | | | Trip % | | | Trip Purpos | e % |
|---------------------|------------|------------|-------------|------------|------------|-------------|---------|-------------|---------|
| Land Use | 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 |
| Apartments Mid Rise | 14.70 | 5.90 | 8.70 | 40.20 | 19.20 | 40.60 | 86 | 11 | 3 |
| Health Club | 16.60 | 8.40 | 6.90 | 16.90 | 64.10 | 19.00 | 52 | 39 | 9 |
| Hotel | 16.60 | 8.40 | 6.90 | 19.40 | 61.60 | 19.00 | 58 | 38 | 4 |

4.4 Fleet Mix

| Land Use | LDA | LDT1 | LDT2 | MDV | LHD1 | LHD2 | MHD | HHD | OBUS | UBUS | MCY | SBUS | MH |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| Apartments Mid Rise | 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 |
| Health Club | 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 |
| Hotel | 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

| | ROG | NOx | СО | 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/c | day | | | | | | | lb/c | lay | | |
| NaturalGas Mitigated | 0.2835 | 2.5571 | 2.0147 | 0.0155 | | 0.1959 | 0.1959 | | 0.1959 | 0.1959 | | 3,093.071 4 | 3,093.071 4 | 0.0593 | 0.0567 | 3,111.451 9 |
| NaturalGas Unmitigated | 0.2835 | 2.5571 | 2.0147 | 0.0155 | | 0.1959 | 0.1959 | | 0.1959 | 0.1959 | | 3,093.071 4 | 3,093.071 4 | 0.0593 | 0.0567 | 3,111.451 9 |

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Pomona Hyatt Place (Operations) - Los Angeles-South Coast County, Winter

5.2 Energy by Land Use - NaturalGas <u>Unmitigated</u>

| | NaturalGa s 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/d | day | | | | | | | lb/c | lay | | |
| Apartments Mid Rise | 3486.67 | 0.0376 | 0.3213 | 0.1367 | 2.0500e- 003 | | 0.0260 | 0.0260 | | 0.0260 | 0.0260 | | 410.1970 | 410.1970 | 7.8600e- 003 | 7.5200e- 003 | 412.6346 |
| Health Club | 2294.63 | 0.0248 | 0.2250 | 0.1890 | 1.3500e- 003 | | 0.0171 | 0.0171 | | 0.0171 | 0.0171 | | 269.9569 | 269.9569 | 5.1700e- 003 | 4.9500e- 003 | 271.5611 |
| Hotel | 20509.8 | 0.2212 | 2.0108 | 1.6890 | 0.0121 | | 0.1528 | 0.1528 | | 0.1528 | 0.1528 | | 2,412.917 5 | 2,412.917 5 | 0.0463 | 0.0442 | 2,427.256 2 |
| Total | | 0.2835 | 2.5570 | 2.0147 | 0.0155 | | 0.1959 | 0.1959 | | 0.1959 | 0.1959 | | 3,093.071 4 | 3,093.071 4 | 0.0593 | 0.0567 | 3,111.451 9 |

Mitigated

| | NaturalGa s Use | ROG | NOx | СО | 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/d | day | | | | | | | lb/d | day | | |
| Apartments Mid Rise | 3.48667 | 0.0376 | 0.3213 | 0.1367 | 2.0500e- 003 | | 0.0260 | 0.0260 | i i | 0.0260 | 0.0260 | | 410.1970 | 410.1970 | 7.8600e- 003 | 7.5200e- 003 | 412.6346 |
| Health Club | 2.29463 | 0.0248 | 0.2250 | 0.1890 | 1.3500e- 003 | | 0.0171 | 0.0171 | , | 0.0171 | 0.0171 | | 269.9569 | 269.9569 | 5.1700e- 003 | 4.9500e- 003 | 271.5611 |
| Hotel | 20.5098 | 0.2212 | 2.0108 | 1.6890 | 0.0121 | | 0.1528 | 0.1528 | , | 0.1528 | 0.1528 | | 2,412.917 5 | 2,412.917 5 | 0.0463 | 0.0442 | 2,427.256 2 |
| Total | | 0.2835 | 2.5570 | 2.0147 | 0.0155 | | 0.1959 | 0.1959 | | 0.1959 | 0.1959 | | 3,093.071 4 | 3,093.071 4 | 0.0593 | 0.0567 | 3,111.451 9 |

6.0 Area Detail

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Pomona Hyatt Place (Operations) - Los Angeles-South Coast County, Winter

6.1 Mitigation Measures Area

| | ROG | NOx | СО | 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/d | day | | | | lb/d | day | | | | | |
| Mitigated | 10.4780 | 1.6671 | 8.5611 | 0.0105 | | 0.1708 | 0.1708 | | 0.1708 | 0.1708 | 0.0000 | 2,025.934 4 | 2,025.934 4 | 0.0525 | 0.0369 | 2,038.237 1 |
| Unmitigated | 10.4780 | 1.6671 | 8.5611 | 0.0105 | i i | 0.1708 | 0.1708 | | 0.1708 | 0.1708 | 0.0000 | 2,025.934 4 | 2,025.934 4 | 0.0525 | 0.0369 | 2,038.237 1 |

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Pomona Hyatt Place (Operations) - Los Angeles-South Coast County, Winter

6.2 Area by SubCategory Unmitigated

| | ROG | NOx | СО | 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 | 1.0732 | | | | | 0.0000 | 0.0000 | i i | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 | |
| Consumer Products | 8.9784 | | | | | 0.0000 | 0.0000 | i i | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 | |
| Hearth | 0.1844 | 1.5759 | 0.6706 | 0.0101 | | 0.1274 | 0.1274 | | 0.1274 | 0.1274 | 0.0000 | 2,011.764 7 | 2,011.764 7 | 0.0386 | 0.0369 | 2,023.719 6 | |
| Landscaping | 0.2420 | 0.0912 | 7.8905 | 4.2000e- 004 | | 0.0433 | 0.0433 | 1 1 1 1 | 0.0433 | 0.0433 | | 14.1697 | 14.1697 | 0.0139 | | 14.5175 | |
| Total | 10.4780 | 1.6671 | 8.5611 | 0.0105 | | 0.1708 | 0.1708 | | 0.1708 | 0.1708 | 0.0000 | 2,025.934 4 | 2,025.934 | 0.0525 | 0.0369 | 2,038.237 1 | |

Pomona Hyatt Place (Operations) - 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 | 1.0732 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 | |
| Consumer Products | 8.9784 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | | 0.0000 | | | 0.0000 | |
| Hearth | 0.1844 | 1.5759 | 0.6706 | 0.0101 | | 0.1274 | 0.1274 | | 0.1274 | 0.1274 | 0.0000 | 2,011.764 7 | 2,011.764 7 | 0.0386 | 0.0369 | 2,023.719 6 | |
| Landscaping | 0.2420 | 0.0912 | 7.8905 | 4.2000e- 004 | | 0.0433 | 0.0433 | 1 | 0.0433 | 0.0433 | | 14.1697 | 14.1697 | 0.0139 | | 14.5175 | |
| Total | 10.4780 | 1.6671 | 8.5611 | 0.0105 | | 0.1708 | 0.1708 | | 0.1708 | 0.1708 | 0.0000 | 2,025.934 4 | 2,025.934 4 | 0.0525 | 0.0369 | 2,038.237 1 | |

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

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 |
|----------------|--------|-----------|-----------|-------------|-------------|-----------|

Pomona Hyatt Place (Operations) - Los Angeles-South Coast County, Winter

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

ATTACHMENT "B"



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Pomona Hyatt Place (2010 BAU) - Los Angeles-South Coast County, Annual

Pomona Hyatt Place (2010 BAU)

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|---------------------|--------|---------------|-------------|--------------------|------------|
| Hotel | 215.00 | Room | 7.17 | 312,180.00 | 0 |
| Apartments Mid Rise | 95.00 | Dwelling Unit | 2.50 | 95,000.00 | 272 |
| Health Club | 46.27 | 1000sqft | 1.06 | 46,273.00 | 0 |

1.2 Other Project Characteristics

| Urbanization | Urban | Wind Speed (m/s) | 2.2 | Precipitation Freq (Days) | 33 |
|--------------|-------|------------------|-----|---------------------------|------|
| Climate Zone | 9 | | | Operational Year | 2010 |

Utility Company Southern California Edison

 CO2 Intensity
 630.89
 CH4 Intensity
 0.029
 N20 Intensity
 0.006

 (lb/MWhr)
 (lb/MWhr)
 (lb/MWhr)
 (lb/MWhr)

1.3 User Entered Comments & Non-Default Data

Pomona Hyatt Place (2010 BAU) - Los Angeles-South Coast County, Annual

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Project Characteristics - CPUC GHG Calculator version 3c, worksheet tab "CO2 Allocations," cells AH/AQ 35-44.

Land Use -

Construction Phase - Operations Run Only.

Off-road Equipment - Operations Run Only.

Trips and VMT - Operations Run Only.

On-road Fugitive Dust - Operations Run Only.

Vehicle Trips - Trip Rates based on information provided in the Focused Traffic Assessment and ITE 10th Edition (2017)

Woodstoves - Operations Run Only.

Energy Use - Operations Run Only.

| Table Name | Column Name | Default Value | New Value |
|----------------------|-------------------|---------------|-----------|
| tblConstructionPhase | NumDays | 20.00 | 1.00 |
| tblConstructionPhase | PhaseEndDate | 1/28/2010 | 1/1/2010 |
| tblEnergyUse | LightingElect | 3.85 | 3.10 |
| tblEnergyUse | LightingElect | 2.67 | 2.14 |
| tblEnergyUse | NT24E | 2,553.86 | 3,054.10 |
| tblEnergyUse | NT24NG | 1,718.92 | 6,384.00 |
| tblEnergyUse | Refrigerator | 691.75 | 660.00 |
| tblEnergyUse | T24E | 307.17 | 252.63 |
| tblEnergyUse | T24E | 2.94 | 2.25 |
| tblEnergyUse | T24E | 3.50 | 2.55 |
| tblEnergyUse | T24NG | 8,818.91 | 7,012.17 |
| tblEnergyUse | T24NG | 15.35 | 13.65 |
| tblEnergyUse | T24NG | 21.79 | 19.92 |
| tblFireplaces | NumberGas | 80.75 | 95.00 |
| tblFireplaces | NumberNoFireplace | 9.50 | 0.00 |
| tblFireplaces | NumberWood | 4.75 | 0.00 |

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| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 3.00 | 0.00 |
|---------------------------|----------------------------|--------|--------|
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 2.00 | 0.00 |
| tblOnRoadDust | HaulingPercentPave | 100.00 | 0.00 |
| tblOnRoadDust | VendorPercentPave | 100.00 | 0.00 |
| tblOnRoadDust | WorkerPercentPave | 100.00 | 0.00 |
| tblProjectCharacteristics | CO2IntensityFactor | 702.44 | 630.89 |
| tblVehicleTrips | ST_TR | 6.39 | 0.86 |
| tblVehicleTrips | SU_TR | 5.86 | 0.86 |
| tblVehicleTrips | WD_TR | 6.65 | 3.44 |
| tblVehicleTrips | WD_TR | 32.93 | 34.50 |
| tblVehicleTrips | WD_TR | 8.17 | 8.36 |
| tblWoodstoves | NumberCatalytic | 4.75 | 0.00 |
| tblWoodstoves | NumberNoncatalytic | 4.75 | 0.00 |

2.0 Emissions Summary

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2.1 Overall Construction <u>Unmitigated Construction</u>

| | 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 | | | | | ton | s/yr | | | | | | | MT | /yr | | |
| 2010 | 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 |
| Maximum | 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 |

Mitigated Construction

| | ROG | NOx | СО | 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 | | | | | | | |
| 2010 | 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 |
| Maximum | 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 |

| | ROG | NOx | СО | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | CO2e |
|----------------------|------|------|------|------|------------------|-----------------|---------------|-------------------|------------------|----------------|----------|----------|-----------|------|------|------|
| Percent Reduction | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

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| Quarter | Start Date | End Date | Maximum Unmitigated ROG + NOX (tons/quarter) | Maximum Mitigated ROG + NOX (tons/quarter) |
|---------|------------|----------|--|--|
| | | Highest | | |

2.2 Overall Operational

Unmitigated Operational

| | ROG | NOx | СО | 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 | | | | | ton | s/yr | | | | | | | M | Г/yr | | |
| Area | 2.1312 | 0.0322 | 1.0547 | 1.8000e- 004 | | 6.7600e- 003 | 6.7600e- 003 | | 6.7600e- 003 | 6.7600e- 003 | 0.0000 | 24.4198 | 24.4198 | 2.4100e- 003 | 4.2000e- 004 | 24.6047 |
| Energy | 0.0517 | 0.4667 | 0.3677 | 2.8200e- 003 | | 0.0358 | 0.0358 | | 0.0358 | 0.0358 | 0.0000 | 1,446.293 3 | 1,446.293 3 | 0.0528 | 0.0183 | 1,453.057 6 |
| Mobile | 3.0152 | 9.8521 | 36.4516 | 0.0466 | 3.0779 | 0.2180 | 3.2959 | 0.8266 | 0.2073 | 1.0339 | 0.0000 | 4,237.082 5 | 4,237.082 5 | 0.4746 | 0.0000 | 4,248.946 3 |
| Waste | 61 61 61 | | 1 1 1 | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 86.3016 | 0.0000 | 86.3016 | 5.1003 | 0.0000 | 213.8086 |
| Water | 6; 6; 6; 6; | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 4.5621 | 73.2479 | 77.8100 | 0.4719 | 0.0118 | 93.1132 |
| Total | 5.1981 | 10.3510 | 37.8740 | 0.0496 | 3.0779 | 0.2606 | 3.3384 | 0.8266 | 0.2498 | 1.0765 | 90.8637 | 5,781.043 6 | 5,871.907 3 | 6.1019 | 0.0305 | 6,033.530 4 |

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2.2 Overall Operational

Mitigated Operational

| | ROG | NOx | СО | 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 | | | | | ton | s/yr | | | | | | | МТ | /yr | | |
| Area | 2.1312 | 0.0322 | 1.0547 | 1.8000e- 004 | | 6.7600e- 003 | 6.7600e- 003 | | 6.7600e- 003 | 6.7600e- 003 | 0.0000 | 24.4198 | 24.4198 | 2.4100e- 003 | 4.2000e- 004 | 24.6047 |
| Energy | 0.0517 | 0.4667 | 0.3677 | 2.8200e- 003 | | 0.0358 | 0.0358 | | 0.0358 | 0.0358 | 0.0000 | 1,446.293 3 | 1,446.293 3 | 0.0528 | 0.0183 | 1,453.057 6 |
| Mobile | 3.0152 | 9.8521 | 36.4516 | 0.0466 | 3.0779 | 0.2180 | 3.2959 | 0.8266 | 0.2073 | 1.0339 | 0.0000 | 4,237.082 5 | 4,237.082 5 | 0.4746 | 0.0000 | 4,248.946 3 |
| Waste | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 86.3016 | 0.0000 | 86.3016 | 5.1003 | 0.0000 | 213.8086 |
| Water | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 4.5621 | 73.2479 | 77.8100 | 0.4719 | 0.0118 | 93.1132 |
| Total | 5.1981 | 10.3510 | 37.8740 | 0.0496 | 3.0779 | 0.2606 | 3.3384 | 0.8266 | 0.2498 | 1.0765 | 90.8637 | 5,781.043 6 | 5,871.907 3 | 6.1019 | 0.0305 | 6,033.530 4 |

| | ROG | NOx | СО | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | CO2e |
|----------------------|------|------|------|------|------------------|-----------------|---------------|-------------------|------------------|----------------|----------|----------|-----------|------|------|------|
| Percent Reduction | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

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 | 1/1/2010 | 1/1/2010 | 5 | 1 | |

Acres of Grading (Site Preparation Phase): 0

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Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

| Phase Name | Offroad Equipment Type | Amount | Usage Hours | Horse Power | Load Factor |
|------------|--------------------------|--------|-------------|-------------|-------------|
| Demolition | Excavators | 0 | 8.00 | 158 | 0.38 |
| Demolition | Concrete/Industrial Saws | 0 | 8.00 | 81 | 0.73 |
| Demolition | Rubber Tired Dozers | 0 | 8.00 | 247 | 0.40 |

Trips and VMT

| Phase Name | Offroad Equipment | Worker Trip | Vendor Trip | Hauling Trip | Worker Trip | Vendor Trip | Hauling Trip | Worker Vehicle | Vendor | Hauling |
|------------|-------------------|-------------|-------------|--------------|-------------|-------------|--------------|----------------|---------------|---------------|
| | Count | Number | Number | Number | Length | Length | Length | Class | Vehicle Class | Vehicle Class |
| Demolition | 0 | 0.00 | 0.00 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |

3.1 Mitigation Measures Construction

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3.2 Demolition - 2010
Unmitigated Construction On-Site

| | ROG | NOx | СО | 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 | | | | | ton | s/yr | | | | | | | MT | /yr | | |
| Off-Road | 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 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |

Unmitigated Construction Off-Site

| | ROG | NOx | СО | 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 | | | | | ton | s/yr | | | | | | | МТ | /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 | 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 |
| 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 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |

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3.2 Demolition - 2010

<u>Mitigated Construction On-Site</u>

| | ROG | NOx | СО | 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 | | | | | ton | s/yr | | | | | | | MT | /yr | | |
| Off-Road | 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 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |

Mitigated Construction Off-Site

| | ROG | NOx | СО | 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 | | | | | ton | s/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 | 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 |
| 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 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |

4.0 Operational Detail - Mobile

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4.1 Mitigation Measures Mobile

| | ROG | NOx | СО | 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 | | | | | ton | s/yr | | | | | | | МТ | /yr | | |
| Mitigated | 3.0152 | 9.8521 | 36.4516 | 0.0466 | 3.0779 | 0.2180 | 3.2959 | 0.8266 | 0.2073 | 1.0339 | 0.0000 | 4,237.082 5 | 4,237.082 5 | 0.4746 | 0.0000 | 4,248.946 3 |
| Unmitigated | 3.0152 | 9.8521 | 36.4516 | 0.0466 | 3.0779 | 0.2180 | 3.2959 | 0.8266 | 0.2073 | 1.0339 | 0.0000 | 4,237.082 5 | 4,237.082 5 | 0.4746 | 0.0000 | 4,248.946 3 |

4.2 Trip Summary Information

| | Ave | rage Daily Trip Ra | ate | Unmitigated | Mitigated |
|---------------------|----------|--------------------|----------|-------------|------------|
| Land Use | Weekday | Saturday | Sunday | Annual VMT | Annual VMT |
| Apartments Mid Rise | 326.80 | 81.70 | 81.70 | 877,427 | 877,427 |
| Health Club | 1,596.42 | 965.72 | 1236.88 | 3,111,816 | 3,111,816 |
| Hotel | 1,797.40 | 1,760.85 | 1279.25 | 4,099,817 | 4,099,817 |
| Total | 3,720.62 | 2,808.27 | 2,597.83 | 8,089,060 | 8,089,060 |

4.3 Trip Type Information

| | | Miles | | | Trip % | | | Trip Purpos | e % |
|---------------------|------------|------------|-------------|------------|------------|-------------|---------|-------------|---------|
| Land Use | 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 |
| Apartments Mid Rise | 14.70 | 5.90 | 8.70 | 40.20 | 19.20 | 40.60 | 86 | 11 | 3 |
| Health Club | 16.60 | 8.40 | 6.90 | 16.90 | 64.10 | 19.00 | 52 | 39 | 9 |
| Hotel | 16.60 | 8.40 | 6.90 | 19.40 | 61.60 | 19.00 | 58 | 38 | 4 |

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4.4 Fleet Mix

| Land Use | LDA | LDT1 | LDT2 | MDV | LHD1 | LHD2 | MHD | HHD | OBUS | UBUS | MCY | SBUS | MH |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| Apartments Mid Rise | 0.539425 | 0.057287 | 0.181716 | 0.138685 | 0.025839 | 0.005625 | 0.016206 | 0.023337 | 0.002319 | 0.003694 | 0.004025 | 0.000578 | 0.001264 |
| Health Club | 0.539425 | 0.057287 | 0.181716 | 0.138685 | 0.025839 | 0.005625 | 0.016206 | 0.023337 | 0.002319 | 0.003694 | 0.004025 | 0.000578 | 0.001264 |
| Hotel | 0.539425 | 0.057287 | 0.181716 | 0.138685 | 0.025839 | 0.005625 | 0.016206 | 0.023337 | 0.002319 | 0.003694 | 0.004025 | 0.000578 | 0.001264 |

5.0 Energy Detail

Historical Energy Use: Y

5.1 Mitigation Measures Energy

| | 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 | | | | | ton | s/yr | | | | | | | MT | /yr | | |
| Electricity Mitigated | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 934.2006 | 934.2006 | 0.0429 | 8.8800e- 003 | 937.9218 |
| Electricity Unmitigated | 1 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 934.2006 | 934.2006 | 0.0429 | 8.8800e- 003 | 937.9218 |
| NaturalGas Mitigated | 0.0517 | 0.4667 | 0.3677 | 2.8200e- 003 | | 0.0358 | 0.0358 | , ! ! ! | 0.0358 | 0.0358 | 0.0000 | 512.0927 | 512.0927 | 9.8200e- 003 | 9.3900e- 003 | 515.1358 |
| NaturalGas Unmitigated | 0.0517 | 0.4667 | 0.3677 | 2.8200e- 003 | | 0.0358 | 0.0358 | r | 0.0358 | 0.0358 | 0.0000 | 512.0927 | 512.0927 | 9.8200e- 003 | 9.3900e- 003 | 515.1358 |

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5.2 Energy by Land Use - NaturalGas <u>Unmitigated</u>

| | NaturalGa s 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 | | | | | ton | s/yr | | | | | MT | /yr | | | | |
| Apartments Mid Rise | 1.27264e +006 | 6.8600e- 003 | 0.0586 | 0.0250 | 3.7000e- 004 | | 4.7400e- 003 | 4.7400e- 003 | | 4.7400e- 003 | 4.7400e- 003 | 0.0000 | 67.9127 | 67.9127 | 1.3000e- 003 | 1.2500e- 003 | 68.3163 |
| Health Club | 837541 | 4.5200e- 003 | 0.0411 | 0.0345 | 2.5000e- 004 | | 3.1200e- 003 | 3.1200e- 003 | | 3.1200e- 003 | 3.1200e- 003 | 0.0000 | 44.6944 | 44.6944 | 8.6000e- 004 | 8.2000e- 004 | 44.9600 |
| Hotel | 7.48608e +006 | 0.0404 | 0.3670 | 0.3083 | 2.2000e- 003 | | 0.0279 | 0.0279 | | 0.0279 | 0.0279 | 0.0000 | 399.4856 | 399.4856 | 7.6600e- 003 | 7.3200e- 003 | 401.8595 |
| Total | | 0.0518 | 0.4667 | 0.3677 | 2.8200e- 003 | | 0.0358 | 0.0358 | | 0.0358 | 0.0358 | 0.0000 | 512.0927 | 512.0927 | 9.8200e- 003 | 9.3900e- 003 | 515.1358 |

Mitigated

| | NaturalGa s Use | ROG | NOx | СО | 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 | | | | | ton | s/yr | | | | | | | MT | /уг | | |
| Apartments Mid Rise | 1.27264e +006 | 6.8600e- 003 | 0.0586 | 0.0250 | 3.7000e- 004 | | 4.7400e- 003 | 4.7400e- 003 | | 4.7400e- 003 | 4.7400e- 003 | 0.0000 | 67.9127 | 67.9127 | 1.3000e- 003 | 1.2500e- 003 | 68.3163 |
| Health Club | 837541 | 4.5200e- 003 | 0.0411 | 0.0345 | 2.5000e- 004 | | 3.1200e- 003 | 3.1200e- 003 | | 3.1200e- 003 | 3.1200e- 003 | 0.0000 | 44.6944 | 44.6944 | 8.6000e- 004 | 8.2000e- 004 | 44.9600 |
| Hotel | 7.48608e +006 | 0.0404 | 0.3670 | 0.3083 | 2.2000e- 003 | | 0.0279 | 0.0279 | | 0.0279 | 0.0279 | 0.0000 | 399.4856 | 399.4856 | 7.6600e- 003 | 7.3200e- 003 | 401.8595 |
| Total | | 0.0518 | 0.4667 | 0.3677 | 2.8200e- 003 | | 0.0358 | 0.0358 | | 0.0358 | 0.0358 | 0.0000 | 512.0927 | 512.0927 | 9.8200e- 003 | 9.3900e- 003 | 515.1358 |

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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 | |
| Apartments Mid Rise | 384576 | 110.0530 | 5.0600e- 003 | 1.0500e- 003 | 110.4913 |
| Health Club | 513630 | 146.9840 | 6.7600e- 003 | 1.4000e- 003 | 147.5695 |
| Hotel | 2.36632e +006 | 677.1637 | 0.0311 | 6.4400e- 003 | 679.8610 |
| Total | | 934.2007 | 0.0430 | 8.8900e- 003 | 937.9218 |

Mitigated

| | Electricity Use | Total CO2 | CH4 | N2O | CO2e |
|------------------------|--------------------|-----------|-----------------|-----------------|----------|
| Land Use | kWh/yr | | МТ | -/yr | |
| Apartments Mid Rise | 384576 | 110.0530 | 5.0600e- 003 | 1.0500e- 003 | 110.4913 |
| Health Club | 513630 | 146.9840 | 6.7600e- 003 | 1.4000e- 003 | 147.5695 |
| Hotel | 2.36632e +006 | 677.1637 | 0.0311 | 6.4400e- 003 | 679.8610 |
| Total | | 934.2007 | 0.0430 | 8.8900e- 003 | 937.9218 |

6.0 Area Detail

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6.1 Mitigation Measures Area

| | 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 | | | | | ton | s/yr | | | | | | | MT | /yr | | |
| Mitigated | 2.1312 | 0.0322 | 1.0547 | 1.8000e- 004 | | 6.7600e- 003 | 6.7600e- 003 | | 6.7600e- 003 | 6.7600e- 003 | 0.0000 | 24.4198 | 24.4198 | 2.4100e- 003 | 4.2000e- 004 | 24.6047 |
| Unmitigated | 2.1312 | 0.0322 | 1.0547 | 1.8000e- 004 | | 6.7600e- 003 | 6.7600e- 003 | | 6.7600e- 003 | 6.7600e- 003 | 0.0000 | 24.4198 | 24.4198 | 2.4100e- 003 | 4.2000e- 004 | 24.6047 |

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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 | | | | | ton | s/yr | | | | | | | МТ | /yr | | |
| Architectural Coating | 0.4525 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Consumer Products | 1.6386 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Hearth | 2.3100e- 003 | 0.0197 | 8.3800e- 003 | 1.3000e- 004 | | 1.5900e- 003 | 1.5900e- 003 | | 1.5900e- 003 | 1.5900e- 003 | 0.0000 | 22.8130 | 22.8130 | 4.4000e- 004 | 4.2000e- 004 | 22.9486 |
| Landscaping | 0.0378 | 0.0125 | 1.0463 | 5.0000e- 005 | | 5.1700e- 003 | 5.1700e- 003 | 1 | 5.1700e- 003 | 5.1700e- 003 | 0.0000 | 1.6068 | 1.6068 | 1.9700e- 003 | 0.0000 | 1.6561 |
| Total | 2.1312 | 0.0322 | 1.0547 | 1.8000e- 004 | | 6.7600e- 003 | 6.7600e- 003 | | 6.7600e- 003 | 6.7600e- 003 | 0.0000 | 24.4198 | 24.4198 | 2.4100e- 003 | 4.2000e- 004 | 24.6047 |

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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 | | | | | ton | s/yr | | | | | | | МТ | /yr | | |
| Architectural Coating | 0.4525 | | | | | 0.0000 | 0.0000 | i i | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Consumer Products | 1.6386 | | i i | | | 0.0000 | 0.0000 | i i | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Hearth | 2.3100e- 003 | 0.0197 | 8.3800e- 003 | 1.3000e- 004 | | 1.5900e- 003 | 1.5900e- 003 | | 1.5900e- 003 | 1.5900e- 003 | 0.0000 | 22.8130 | 22.8130 | 4.4000e- 004 | 4.2000e- 004 | 22.9486 |
| Landscaping | 0.0378 | 0.0125 | 1.0463 | 5.0000e- 005 | | 5.1700e- 003 | 5.1700e- 003 | i i | 5.1700e- 003 | 5.1700e- 003 | 0.0000 | 1.6068 | 1.6068 | 1.9700e- 003 | 0.0000 | 1.6561 |
| Total | 2.1312 | 0.0322 | 1.0547 | 1.8000e- 004 | | 6.7600e- 003 | 6.7600e- 003 | | 6.7600e- 003 | 6.7600e- 003 | 0.0000 | 24.4198 | 24.4198 | 2.4100e- 003 | 4.2000e- 004 | 24.6047 |

7.0 Water Detail

7.1 Mitigation Measures Water

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| | Total CO2 | CH4 | N2O | CO2e |
|----------|-----------|--------|--------|---------|
| Category | | МТ | -/yr | |
| Imagatou | | 0.4719 | 0.0118 | 93.1132 |
| Jgatou | 77.8100 | 0.4719 | 0.0118 | 93.1132 |

7.2 Water by Land Use Unmitigated

| | Indoor/Out door Use | Total CO2 | CH4 | N2O | CO2e | |
|------------------------|------------------------|-----------|--------|-----------------|---------|--|
| Land Use | Mgal | MT/yr | | | | |
| Apartments Mid Rise | 6.18963 / 3.90216 | 37.4336 | 0.2033 | 5.1000e- 003 | 44.0362 | |
| Health Club | 2.73655 / 1.67724 | 16.3976 | 0.0899 | 2.2500e- 003 | 19.3161 | |
| Hotel | 5.45386 / 0.605984 | 23.9789 | 0.1787 | 4.4100e- 003 | 29.7609 | |
| Total | | 77.8100 | 0.4719 | 0.0118 | 93.1132 | |

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7.2 Water by Land Use Mitigated

| | Indoor/Out door Use | Total CO2 | CH4 | N2O | CO2e |
|------------------------|------------------------|-----------|--------|-----------------|---------|
| Land Use | Mgal | MT/yr | | | |
| Apartments Mid Rise | 6.18963 / 3.90216 | 37.4336 | 0.2033 | 5.1000e- 003 | 44.0362 |
| Health Club | 2.73655 / 1.67724 | 16.3976 | 0.0899 | 2.2500e- 003 | 19.3161 |
| Hotel | 5.45386 / 0.605984 | 23.9789 | 0.1787 | 4.4100e- 003 | 29.7609 |
| Total | | 77.8100 | 0.4719 | 0.0118 | 93.1132 |

8.0 Waste Detail

8.1 Mitigation Measures Waste

Pomona Hyatt Place (2010 BAU) - Los Angeles-South Coast County, Annual

Category/Year

| | Total CO2 | CH4 | N2O | CO2e | | |
|-------------|-----------|--------|--------|----------|--|--|
| | MT/yr | | | | | |
| gatea | 86.3016 | 5.1003 | 0.0000 | 213.8086 | | |
| Unmitigated | 86.3016 | 5.1003 | 0.0000 | 213.8086 | | |

8.2 Waste by Land Use <u>Unmitigated</u>

| | | Waste Disposed | Total CO2 | CH4 | N2O | CO2e |
|---|------------------------|-------------------|-----------|--------|--------|----------|
| | Land Use | tons | | МТ | √yr | |
| | Apartments Mid Rise | 43.7 | 8.8707 | 0.5242 | 0.0000 | 21.9768 |
| | Health Club | 263.74 | 53.5368 | 3.1639 | 0.0000 | 132.6353 |
| [| Hotel | 117.71 | 23.8941 | 1.4121 | 0.0000 | 59.1965 |
| | Total | | 86.3016 | 5.1003 | 0.0000 | 213.8086 |

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8.2 Waste by Land Use

Mitigated

| | Waste Disposed | Total CO2 | CH4 | N2O | CO2e | |
|------------------------|-------------------|-----------|--------|--------|----------|--|
| Land Use | tons | MT/yr | | | | |
| Apartments Mid Rise | 43.7 | 8.8707 | 0.5242 | 0.0000 | 21.9768 | |
| Health Club | 263.74 | 53.5368 | 3.1639 | 0.0000 | 132.6353 | |
| Hotel | 117.71 | 23.8941 | 1.4121 | 0.0000 | 59.1965 | |
| Total | | 86.3016 | 5.1003 | 0.0000 | 213.8086 | |

9.0 Operational Offroad

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

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 |
|----------------|--------|

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11.0 Vegetation

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Pomona Hyatt Place (Operations)

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|---------------------|--------|---------------|-------------|--------------------|------------|
| Hotel | 215.00 | Room | 7.17 | 312,180.00 | 0 |
| Apartments Mid Rise | 95.00 | Dwelling Unit | 2.50 | 95,000.00 | 272 |
| Health Club | 46.27 | 1000sqft | 1.06 | 46,273.00 | 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
 466.91
 CH4 Intensity
 0.029
 N20 Intensity
 0.006

 (lb/MWhr)
 (lb/MWhr)
 (lb/MWhr)
 (lb/MWhr)

1.3 User Entered Comments & Non-Default Data

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Project Characteristics - CPUC GHG calculator version 3c, worksheet tab "CO2 Allocations," cells AH/AQ 35-44

Land Use -

Construction Phase - Operations Run Only.

Off-road Equipment - Operations Run Only.

Trips and VMT - Operations Run Only.

On-road Fugitive Dust - Operations Run Only.

Vehicle Trips - Trip Rates based on information provided in the Focused Traffic Assessment and ITE 10th Edition (2017)

Woodstoves - Operations Run Only.

Energy Use -

Mobile Land Use Mitigation -

Water Mitigation -

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| Table Name | Column Name | Default Value | New Value |
|---------------------------|----------------------------|---------------|-----------|
| tblConstructionPhase | NumDays | 20.00 | 1.00 |
| tblConstructionPhase | PhaseEndDate | 6/28/2019 | 6/3/2019 |
| tblFireplaces | NumberGas | 80.75 | 95.00 |
| tblFireplaces | NumberNoFireplace | 9.50 | 0.00 |
| tblFireplaces | NumberWood | 4.75 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 3.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 2.00 | 0.00 |
| tblOnRoadDust | HaulingPercentPave | 100.00 | 0.00 |
| tblOnRoadDust | VendorPercentPave | 100.00 | 0.00 |
| tblOnRoadDust | WorkerPercentPave | 100.00 | 0.00 |
| tblProjectCharacteristics | CO2IntensityFactor | 702.44 | 466.91 |
| tblVehicleTrips | ST_TR | 6.39 | 0.86 |
| tblVehicleTrips | SU_TR | 5.86 | 0.86 |
| tblVehicleTrips | WD_TR | 6.65 | 3.44 |
| tblVehicleTrips | WD_TR | 32.93 | 34.50 |
| tblVehicleTrips | WD_TR | 8.17 | 8.36 |
| tblWoodstoves | NumberCatalytic | 4.75 | 0.00 |
| tblWoodstoves | NumberNoncatalytic | 4.75 | 0.00 |

2.0 Emissions Summary

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2.1 Overall Construction <u>Unmitigated Construction</u>

| | 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 | | | | | ton | s/yr | | | | | | | MT | /yr | | |
| 2019 | 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 |
| Maximum | 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 |

Mitigated Construction

| | ROG | NOx | СО | 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 | | | | | ton | s/yr | | | | | | | MT | /yr | | |
| 2019 | 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 |
| Maximum | 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 |

| | ROG | NOx | СО | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | CO2e |
|----------------------|------|------|------|------|------------------|-----------------|---------------|-------------------|------------------|----------------|----------|----------|-----------|------|------|------|
| Percent Reduction | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

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| Quarter | Start Date | End Date | Maximum Unmitigated ROG + NOX (tons/quarter) | Maximum Mitigated ROG + NOX (tons/quarter) |
|---------|------------|----------|--|--|
| | | Highest | | |

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 | | | | | ton | s/yr | | | | | | | MT | /yr | | |
| Area | 1.8670 | 0.0311 | 0.9947 | 1.8000e- 004 | 1 | 7.0100e- 003 | 7.0100e- 003 | | 7.0100e- 003 | 7.0100e- 003 | 0.0000 | 24.4198 | 24.4198 | 2.0200e- 003 | 4.2000e- 004 | 24.5949 |
| Energy | 0.0517 | 0.4667 | 0.3677 | 2.8200e- 003 | | 0.0358 | 0.0358 | | 0.0358 | 0.0358 | 0.0000 | 1,203.477 2 | 1,203.477 2 | 0.0528 | 0.0183 | 1,210.241 5 |
| Mobile | 1.0651 | 5.1687 | 12.9320 | 0.0400 | 3.0702 | 0.0417 | 3.1119 | 0.8231 | 0.0391 | 0.8622 | 0.0000 | 3,689.499 0 | 3,689.499 0 | 0.2145 | 0.0000 | 3,694.862 3 |
| Waste | | | | | | 0.0000 | 0.0000 | , | 0.0000 | 0.0000 | 86.3016 | 0.0000 | 86.3016 | 5.1003 | 0.0000 | 213.8086 |
| Water | ,, | | | | | 0.0000 | 0.0000 | , | 0.0000 | 0.0000 | 4.5621 | 54.2094 | 58.7715 | 0.4719 | 0.0118 | 74.0747 |
| Total | 2.9838 | 5.6665 | 14.2944 | 0.0430 | 3.0702 | 0.0845 | 3.1547 | 0.8231 | 0.0819 | 0.9049 | 90.8637 | 4,971.605 5 | 5,062.469 3 | 5.8415 | 0.0305 | 5,217.581 9 |

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2.2 Overall Operational

Mitigated Operational

| | ROG | NOx | СО | 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 | | | | | ton | s/yr | | | | MT | /yr | | | | | |
| Area | 1.8670 | 0.0311 | 0.9947 | 1.8000e- 004 | | 7.0100e- 003 | 7.0100e- 003 | | 7.0100e- 003 | 7.0100e- 003 | 0.0000 | 24.4198 | 24.4198 | 2.0200e- 003 | 4.2000e- 004 | 24.5949 |
| Energy | 0.0517 | 0.4667 | 0.3677 | 2.8200e- 003 | | 0.0358 | 0.0358 | | 0.0358 | 0.0358 | 0.0000 | 1,203.477 2 | 1,203.477 2 | 0.0528 | 0.0183 | 1,210.241 5 |
| Mobile | 1.0169 | 4.8276 | 11.7557 | 0.0356 | 2.7079 | 0.0373 | 2.7452 | 0.7259 | 0.0350 | 0.7609 | 0.0000 | 3,285.500 4 | 3,285.500 4 | 0.1944 | 0.0000 | 3,290.359 8 |
| Waste | | - | y | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 86.3016 | 0.0000 | 86.3016 | 5.1003 | 0.0000 | 213.8086 |
| Water | | | , | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 3.6497 | 46.2783 | 49.9280 | 0.3777 | 9.4500e- 003 | 62.1862 |
| Total | 2.9356 | 5.3254 | 13.1181 | 0.0386 | 2.7079 | 0.0800 | 2.7880 | 0.7259 | 0.0777 | 0.8037 | 89.9513 | 4,559.675 8 | 4,649.627 1 | 5.7272 | 0.0281 | 4,801.191 0 |

| | ROG | NOx | СО | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | CO2e |
|----------------------|------|------|------|-------|------------------|-----------------|---------------|-------------------|------------------|----------------|----------|----------|-----------|------|------|------|
| Percent Reduction | 1.61 | 6.02 | 8.23 | 10.19 | 11.80 | 5.26 | 11.62 | 11.80 | 5.09 | 11.19 | 1.00 | 8.29 | 8.15 | 1.96 | 7.59 | 7.98 |

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 | 6/1/2019 | 6/3/2019 | 5 | 1 | |

Acres of Grading (Site Preparation Phase): 0

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Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

| Phase Name | Offroad Equipment Type | Amount | Usage Hours | Horse Power | Load Factor |
|------------|--------------------------|--------|-------------|-------------|-------------|
| Demolition | Excavators | 0 | 8.00 | 158 | 0.38 |
| Demolition | Concrete/Industrial Saws | 0 | 8.00 | 81 | 0.73 |
| Demolition | Rubber Tired Dozers | 0 | 8.00 | 247 | 0.40 |

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 | | Vendor Vehicle Class | Hauling Vehicle Class |
|------------|----------------------------|-----------------------|-----------------------|------------------------|-----------------------|-----------------------|------------------------|--------|-------------------------|--------------------------|
| Demolition | 0 | 0.00 | 0.00 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |

3.1 Mitigation Measures Construction

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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 | | | | | ton | s/yr | | | | | | | MT | /yr | | |
| Off-Road | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | i i i | 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 | 0.0000 | 0.0000 |

Unmitigated Construction Off-Site

| | ROG | NOx | СО | 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 | 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 | | | |
| 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 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | | |

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3.2 Demolition - 2019

<u>Mitigated Construction On-Site</u>

| | ROG | NOx | СО | 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 | | | | | | |
| | 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 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | |

Mitigated Construction Off-Site

| | ROG | NOx | СО | 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 | 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 | | | |
| 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 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | | |

4.0 Operational Detail - Mobile

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4.1 Mitigation Measures Mobile

Increase Diversity

Improve Pedestrian Network

| | 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 | 1.0169 | 4.8276 | 11.7557 | 0.0356 | 2.7079 | 0.0373 | 2.7452 | 0.7259 | 0.0350 | 0.7609 | 0.0000 | 3,285.500 4 | 3,285.500 4 | 0.1944 | 0.0000 | 3,290.359 8 | |
| Unmitigated | 1.0651 | 5.1687 | 12.9320 | 0.0400 | 3.0702 | 0.0417 | 3.1119 | 0.8231 | 0.0391 | 0.8622 | 0.0000 | 3,689.499 0 | 3,689.499 0 | 0.2145 | 0.0000 | 3,694.862 3 | |

4.2 Trip Summary Information

| | Ave | rage Daily Trip Ra | ite | Unmitigated | Mitigated |
|---------------------|----------|--------------------|----------|-------------|------------|
| Land Use | Weekday | Saturday | Sunday | Annual VMT | Annual VMT |
| Apartments Mid Rise | 326.80 | 81.70 | 81.70 | 877,427 | 773,891 |
| Health Club | 1,596.42 | 965.72 | 1236.88 | 3,111,816 | 2,744,622 |
| Hotel | 1,797.40 | 1,760.85 | 1279.25 | 4,099,817 | 3,616,038 |
| Total | 3,720.62 | 2,808.27 | 2,597.83 | 8,089,060 | 7,134,551 |

4.3 Trip Type Information

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| | | Miles | | | Trip % | | Trip Purpose % | | | | |
|---------------------|------------|------------|-------------|------------|------------|-------------|----------------|----------|---------|--|--|
| Land Use | 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 | | |
| Apartments Mid Rise | 14.70 | 5.90 | 8.70 | 40.20 | 19.20 | 40.60 | 86 | 11 | 3 | | |
| Health Club | 16.60 | 8.40 | 6.90 | 16.90 | 64.10 | 19.00 | 52 | 39 | 9 | | |
| Hotel | 16.60 | 8.40 | 6.90 | 19.40 | 61.60 | 19.00 | 58 | 38 | 4 | | |

4.4 Fleet Mix

| Land Use | LDA | LDT1 | LDT2 | MDV | LHD1 | LHD2 | MHD | HHD | OBUS | UBUS | MCY | SBUS | MH |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| Apartments Mid Rise | 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 |
| Health Club | 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 |
| Hotel | 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

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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 | | | | | ton | s/yr | | | | | | | MT | /yr | | |
| Electricity Mitigated | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 691.3846 | 691.3846 | 0.0429 | 8.8800e- 003 | 695.1058 |
| Electricity Unmitigated | , | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 691.3846 | 691.3846 | 0.0429 | 8.8800e- 003 | 695.1058 |
| NaturalGas Mitigated | 0.0517 | 0.4667 | 0.3677 | 2.8200e- 003 | | 0.0358 | 0.0358 | | 0.0358 | 0.0358 | 0.0000 | 512.0927 | 512.0927 | 9.8200e- 003 | 9.3900e- 003 | 515.1358 |
| NaturalGas Unmitigated | 0.0517 | 0.4667 | 0.3677 | 2.8200e- 003 | | 0.0358 | 0.0358 | | 0.0358 | 0.0358 | 0.0000 | 512.0927 | 512.0927 | 9.8200e- 003 | 9.3900e- 003 | 515.1358 |

5.2 Energy by Land Use - NaturalGas <u>Unmitigated</u>

| | NaturalGa s 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 | | | | | ton | s/yr | | | | | | | MT | /yr | | |
| Apartments Mid Rise | 1.27264e +006 | 6.8600e- 003 | 0.0586 | 0.0250 | 3.7000e- 004 | | 4.7400e- 003 | 4.7400e- 003 | | 4.7400e- 003 | 4.7400e- 003 | 0.0000 | 67.9127 | 67.9127 | 1.3000e- 003 | 1.2500e- 003 | 68.3163 |
| Health Club | 837541 | 4.5200e- 003 | 0.0411 | 0.0345 | 2.5000e- 004 | | 3.1200e- 003 | 3.1200e- 003 | | 3.1200e- 003 | 3.1200e- 003 | 0.0000 | 44.6944 | 44.6944 | 8.6000e- 004 | 8.2000e- 004 | 44.9600 |
| Hotel | 7.48608e +006 | 0.0404 | 0.3670 | 0.3083 | 2.2000e- 003 | | 0.0279 | 0.0279 | | 0.0279 | 0.0279 | 0.0000 | 399.4856 | 399.4856 | 7.6600e- 003 | 7.3200e- 003 | 401.8595 |
| Total | | 0.0518 | 0.4667 | 0.3677 | 2.8200e- 003 | | 0.0358 | 0.0358 | | 0.0358 | 0.0358 | 0.0000 | 512.0927 | 512.0927 | 9.8200e- 003 | 9.3900e- 003 | 515.1358 |

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5.2 Energy by Land Use - NaturalGas Mitigated

| | NaturalGa s 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 | | | | | ton | s/yr | | | | | | | MT | /yr | | |
| Apartments Mid Rise | 1.27264e +006 | 6.8600e- 003 | 0.0586 | 0.0250 | 3.7000e- 004 | | 4.7400e- 003 | 4.7400e- 003 | | 4.7400e- 003 | 4.7400e- 003 | 0.0000 | 67.9127 | 67.9127 | 1.3000e- 003 | 1.2500e- 003 | 68.3163 |
| Health Club | 837541 | 4.5200e- 003 | 0.0411 | 0.0345 | 2.5000e- 004 | | 3.1200e- 003 | 3.1200e- 003 | | 3.1200e- 003 | 3.1200e- 003 | 0.0000 | 44.6944 | 44.6944 | 8.6000e- 004 | 8.2000e- 004 | 44.9600 |
| Hotel | 7.48608e +006 | 0.0404 | 0.3670 | 0.3083 | 2.2000e- 003 | | 0.0279 | 0.0279 | | 0.0279 | 0.0279 | 0.0000 | 399.4856 | 399.4856 | 7.6600e- 003 | 7.3200e- 003 | 401.8595 |
| Total | | 0.0518 | 0.4667 | 0.3677 | 2.8200e- 003 | | 0.0358 | 0.0358 | | 0.0358 | 0.0358 | 0.0000 | 512.0927 | 512.0927 | 9.8200e- 003 | 9.3900e- 003 | 515.1358 |

5.3 Energy by Land Use - Electricity <u>Unmitigated</u>

| | Electricity Use | Total CO2 | CH4 | N2O | CO2e |
|------------------------|--------------------|-----------|-----------------|-----------------|----------|
| Land Use | kWh/yr | | МТ | -/yr | |
| Apartments Mid Rise | 384576 | 81.4482 | 5.0600e- 003 | 1.0500e- 003 | 81.8865 |
| Health Club | 513630 | 108.7801 | 6.7600e- 003 | 1.4000e- 003 | 109.3656 |
| Hotel | 2.36632e +006 | 501.1563 | 0.0311 | 6.4400e- 003 | 503.8536 |
| Total | | 691.3846 | 0.0430 | 8.8900e- 003 | 695.1058 |

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5.3 Energy by Land Use - Electricity Mitigated

| | Electricity Use | Total CO2 | CH4 | N2O | CO2e |
|------------------------|--------------------|-----------|-----------------|-----------------|----------|
| Land Use | kWh/yr | | МТ | -/yr | |
| Apartments Mid Rise | 384576 | 81.4482 | 5.0600e- 003 | 1.0500e- 003 | 81.8865 |
| Health Club | 513630 | 108.7801 | 6.7600e- 003 | 1.4000e- 003 | 109.3656 |
| Hotel | 2.36632e +006 | 501.1563 | 0.0311 | 6.4400e- 003 | 503.8536 |
| Total | | 691.3846 | 0.0430 | 8.8900e- 003 | 695.1058 |

6.0 Area Detail

6.1 Mitigation Measures Area

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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 | | | | | ton | s/yr | | | | | | | МТ | /yr | | |
| Mitigated | 1.8670 | 0.0311 | 0.9947 | 1.8000e- 004 | | 7.0100e- 003 | 7.0100e- 003 | | 7.0100e- 003 | 7.0100e- 003 | 0.0000 | 24.4198 | 24.4198 | 2.0200e- 003 | 4.2000e- 004 | 24.5949 |
| Unmitigated | 1.8670 | 0.0311 | 0.9947 | 1.8000e- 004 | | 7.0100e- 003 | 7.0100e- 003 | | 7.0100e- 003 | 7.0100e- 003 | 0.0000 | 24.4198 | 24.4198 | 2.0200e- 003 | 4.2000e- 004 | 24.5949 |

6.2 Area by SubCategory

<u>Unmitigated</u>

| | ROG | NOx | СО | 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 | | | | | ton | s/yr | | | | | | | МТ | 7/yr | | |
| Architectural Coating | 0.1959 | | ! ! | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Consumer Products | 1.6386 | | 1 | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Hearth | 2.3100e- 003 | 0.0197 | 8.3800e- 003 | 1.3000e- 004 | | 1.5900e- 003 | 1.5900e- 003 | | 1.5900e- 003 | 1.5900e- 003 | 0.0000 | 22.8130 | 22.8130 | 4.4000e- 004 | 4.2000e- 004 | 22.9486 |
| Landscaping | 0.0303 | 0.0114 | 0.9863 | 5.0000e- 005 | | 5.4200e- 003 | 5.4200e- 003 | | 5.4200e- 003 | 5.4200e- 003 | 0.0000 | 1.6068 | 1.6068 | 1.5800e- 003 | 0.0000 | 1.6463 |
| Total | 1.8670 | 0.0311 | 0.9947 | 1.8000e- 004 | | 7.0100e- 003 | 7.0100e- 003 | | 7.0100e- 003 | 7.0100e- 003 | 0.0000 | 24.4198 | 24.4198 | 2.0200e- 003 | 4.2000e- 004 | 24.5949 |

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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 | | | | | ton | s/yr | | | | | | | MT | /yr | | |
| Architectural Coating | 0.1959 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Consumer Products | 1.6386 | | | | | 0.0000 | 0.0000 | 1 1 1 1 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Hearth | 2.3100e- 003 | 0.0197 | 8.3800e- 003 | 1.3000e- 004 | | 1.5900e- 003 | 1.5900e- 003 | | 1.5900e- 003 | 1.5900e- 003 | 0.0000 | 22.8130 | 22.8130 | 4.4000e- 004 | 4.2000e- 004 | 22.9486 |
| Landscaping | 0.0303 | 0.0114 | 0.9863 | 5.0000e- 005 | | 5.4200e- 003 | 5.4200e- 003 | 1 1 1 1 | 5.4200e- 003 | 5.4200e- 003 | 0.0000 | 1.6068 | 1.6068 | 1.5800e- 003 | 0.0000 | 1.6463 |
| Total | 1.8670 | 0.0311 | 0.9947 | 1.8000e- 004 | | 7.0100e- 003 | 7.0100e- 003 | | 7.0100e- 003 | 7.0100e- 003 | 0.0000 | 24.4198 | 24.4198 | 2.0200e- 003 | 4.2000e- 004 | 24.5949 |

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

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Pomona Hyatt Place (Operations) - Los Angeles-South Coast County, Annual

| | Total CO2 | CH4 | N2O | CO2e |
|---------------|-----------|--------|-----------------|---------|
| Category | | MT | -/yr | |
| Imagatou | 49.9280 | 0.3777 | 9.4500e- 003 | 62.1862 |
| - Crimingatou | 58.7715 | 0.4719 | 0.0118 | 74.0747 |

7.2 Water by Land Use Unmitigated

| | Indoor/Out door Use | Total CO2 | CH4 | N2O | CO2e |
|------------------------|------------------------|-----------|--------|-----------------|---------|
| Land Use | Mgal | | МТ | √yr | |
| Apartments Mid Rise | 6.18963 / 3.90216 | 28.2143 | 0.2033 | 5.1000e- 003 | 34.8170 |
| Health Club | 2.73655 / 1.67724 | 12.3612 | 0.0899 | 2.2500e- 003 | 15.2798 |
| Hotel | 5.45386 / 0.605984 | 18.1961 | 0.1787 | 4.4100e- 003 | 23.9780 |
| Total | | 58.7715 | 0.4719 | 0.0118 | 74.0747 |

CalEEMod Version: CalEEMod.2016.3.2 Page 18 of 21 Date: 5/10/2018 12:57 PM

Pomona Hyatt Place (Operations) - Los Angeles-South Coast County, Annual

7.2 Water by Land Use Mitigated

| | Indoor/Out door Use | Total CO2 | CH4 | N2O | CO2e |
|------------------------|------------------------|-----------|--------|-----------------|---------|
| Land Use | Mgal | | МТ | √yr | |
| Apartments Mid Rise | 4.95171 / 3.90216 | 24.4077 | 0.1628 | 4.1000e- 003 | 29.6998 |
| Health Club | 2.18924 / 1.67724 | 10.6782 | 0.0720 | 1.8100e- 003 | 13.0173 |
| Hotel | 4.36308 / 0.605984 | 14.8420 | 0.1430 | 3.5300e- 003 | 19.4691 |
| Total | | 49.9280 | 0.3777 | 9.4400e- 003 | 62.1862 |

8.0 Waste Detail

8.1 Mitigation Measures Waste

Pomona Hyatt Place (Operations) - Los Angeles-South Coast County, Annual

Category/Year

| | Total CO2 | CH4 | N2O | CO2e |
|-------|-----------|--------|--------|----------|
| | | МТ | 7/yr | |
| ga.ea | 86.3016 | 5.1003 | 0.0000 | 213.8086 |
| J | 86.3016 | 5.1003 | 0.0000 | 213.8086 |

8.2 Waste by Land Use <u>Unmitigated</u>

| | Waste Disposed | Total CO2 | CH4 | N2O | CO2e |
|------------------------|-------------------|-----------|--------|--------|----------|
| Land Use | tons | | MT | Г/уг | |
| Apartments Mid Rise | 43.7 | 8.8707 | 0.5242 | 0.0000 | 21.9768 |
| Health Club | 263.74 | 53.5368 | 3.1639 | 0.0000 | 132.6353 |
| Hotel | 117.71 | 23.8941 | 1.4121 | 0.0000 | 59.1965 |
| Total | | 86.3016 | 5.1003 | 0.0000 | 213.8086 |

Pomona Hyatt Place (Operations) - Los Angeles-South Coast County, Annual

8.2 Waste by Land Use

Mitigated

| | Waste Disposed | Total CO2 | CH4 | N2O | CO2e | | | |
|------------------------|-------------------|-----------|--------|--------|----------|--|--|--|
| Land Use | tons | MT/yr | | | | | | |
| Apartments Mid Rise | 43.7 | 8.8707 | 0.5242 | 0.0000 | 21.9768 | | | |
| Health Club | 263.74 | 53.5368 | 3.1639 | 0.0000 | 132.6353 | | | |
| Hotel | 117.71 | 23.8941 | 1.4121 | 0.0000 | 59.1965 | | | |
| Total | | 86.3016 | 5.1003 | 0.0000 | 213.8086 | | | |

9.0 Operational Offroad

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

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 |
|----------------|--------|
| | |

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Pomona Hyatt Place (Operations) - Los Angeles-South Coast County, Annual

11.0 Vegetation



Phillips Ranch Business Center, LLC 9680 Flair Drive El Monte, California 91731

April 26, 2018

Attention: Martin Hsu

SUBJECT: Well Destruction Activities

Pomona Ranch Plaza Development Project

55 & 65 Rancho Camino Drive

Pomona, Los Angeles County, California

Dear Mr. Hsu:

Group Delta Consultants, Inc. (Group Delta) is pleased to submit this Well Destruction Report for the Pomona Ranch Plaza Development Project in Pomona, California. This Report presents details associated with destruction of four groundwater monitoring wells located within the footprint of the Phillips Ranch Landfill.

We appreciate this opportunity to assist you with the environmental aspects of the Pomona Ranch Plaza Development Project. If you have any questions, comments, or require additional information, please call us at (949) 450-2100.

Sincerely,

GROUP DELTA CONSULTANTS, INC.

David Tietje

Associate Engineer

Eric Smith

Project Geologist

Background

The Pomona Ranch Plaza Development Project consists of approximately 25 acres of partially developed land containing an inactive 3.5-acre landfill known as the Phillips Ranch Landfill (Site). The Site is located at the junction of the 71 and 60 freeways in Pomona. The development includes two anchor stores, a Wal-Mart and Winco Foods, commercial office buildings, and parking areas. Future planned development includes a Hyatt House hotel and a gym/office space/apartment building. The site location is shown in Figure 1. The location of monitoring wells as well as the historical landfill within a portion of the development is shown in Figure 2.

There were a total of four former groundwater monitoring wells, B-18, B-20, B-22, and B-27 located within the landfill footprint. Use of these wells was deemed to be no longer necessary because they were installed prior to 1990 and likely have been dry since at least 2000 (Dames & Moore, 2000). These wells also interfered with the proposed landfill cover system construction, and would create a conduit to the subsurface. For these reasons, the wells were decommissioned.

Pre-field Activities

Prior to the commencement of well destruction, the following tasks were completed:

- Well reconnasiance;
- Preparation of a Work Plan for approval by Cal Recycle and other agencies, and;
- Procurement of a Los Angeles County Department of Environmental Health well destruction permit.

Monitoring Well Details

Prior to well destruction, Group Delta conducted a well reconnaissance and down-hole video survey on Febrauary 2, 2018, to determine site and well conditions, as well as the total depths of the wells. The wells were installed prior to 1990; documents pertaining to the well installations were unavailable at the time of this project. Based on Group Delta's well reconnaissance, the depths of the wells range from approximately 30 feet below ground surface (bgs) in B-20 and B-27 to 36 to 37 feet bgs in B-18 and B-22. Based on down-hole video survey, top of screen intervals range from 16 feet bgs to 25 feet bgs. The well casings were 2-inch diameter polyvinyl chrloride (PVC) with 10-inch PVC conductor casings extending to approximately 8 feet bgs. Each well also had 6-inch steel conductor casings extending from 2 feet bgs to 4 feet bgs. Angular rocks obstructions were discovered at a depth of 36.25 feet bgs in B-18 and 29.67 feet bgs in B-20. Table 1 below provides recorded screen intervals and total depths of the four well locations.

Table 1: Groundwater Levels and Screen Intervals

| Well ID | Date Measured | Screen Interval (ft bgs) | Total Depth (ft bgs) | Depth to Groundwater (ft bgs) |
|---------|---------------|-----------------------------|-------------------------|-------------------------------------|
| B-18 | | 24.67-36.25 (OB) | OB | Dry |
| B-20 | 2/2/2019 | 16.17-30.67 | 30.67 | Dry |
| B-22 | 2/2/2018 | 23.00-37.17 | 37.17 | Dry |
| B-27 | | 18.00-29.67 (OB) OB | | Dry |

Notes

OB. – Obstruction encountered, could not measure past depth presented.

Screen intervals determined through the use of a down-hole camera.

ft bgs – feet below ground surface

Well Destruction Methodology

The wells were destroyed by pressure grouting in accordance with the California Well Standards bulletin 74-90. Prior to grouting at each location, the 10-inch PVC conductor casing was removed. The grout mix for each of the four well locations consisted of three 47-pound bags of Portland cement, one 50-pound bag of bentonite, and approximately 40-gallons of water. Approximately 40-gallons of grout mix was used at each location. For locations B-18 and B-27 prior to beginning grouting, the tremie pipe was used in an attempt to dislodge to obstructions at 36.25 feet bgs and 29.67 feet bgs, respectively. In both cases the drilling operator was unable to dislodge the obstructions. The tremie pipe was placed at the bottom of each well (or depth of obstruction), and grout was pumped to the surface. After the well casing was filled with grout, the tremie pipe was removed and a pressure head was attached to the top of the casing with a coupler. Each well was pressurized to 30 pounds per square inch (PSI) and maintained for 10 minutes, forcing grout into the sand pack and formation. After 10 minutes the pressure was released, and the grout level checked. In each location, there was less than 1 foot of drop in grout. This met the requirements of bulletin 74-90.

Well Destruction Completion

After pressure grouting, the 6-inch steel conductor casing was removed. The upper five feet of the PVC conductor casing was then over drilled using an 8- inch hollow stem auger and filled with grout to approximately 1 foot bgs. No soil cuttings were generated during this process because the 10-inch PVC conductor casings were open and extended approximately 8-feet to 10-feet bgs in each location. The upper 1 foot was then filled with rapid set concrete.

Field Notes

Field notes were maintained by field personnel to document their observations. Field notes are included in Appendix A.

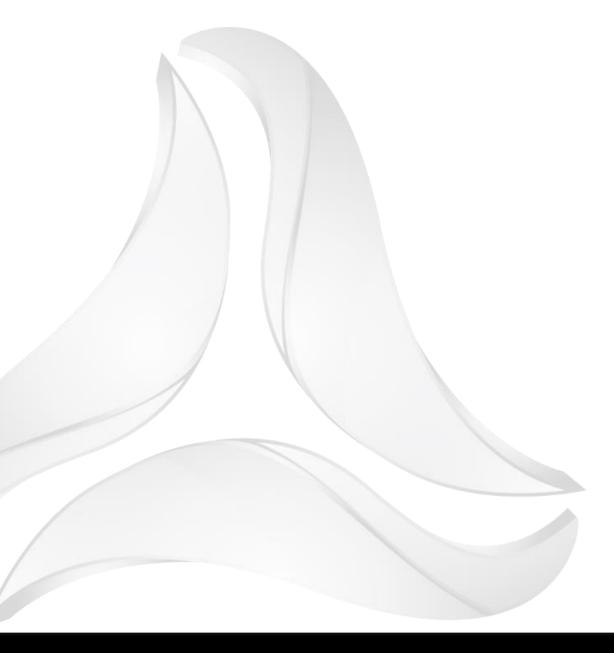
Photographs

Photographs were taken at each location prior to destruction, and upon completion of the well destruction work. Other photographs during activities of interest were taken for documentation purposes. A photo log of well destruction activities is included in Appendix B.

References

California Department of Water Resources, California Well Standards Bulletin 74-90, June 1991.

Dames & Moore, Letter Report, Additional Field Investigation, Phillips Ranch Landfill Site, 86 Rio Ranch Road, Pomona, California, 2000.



Figures





Reference: Google Maps

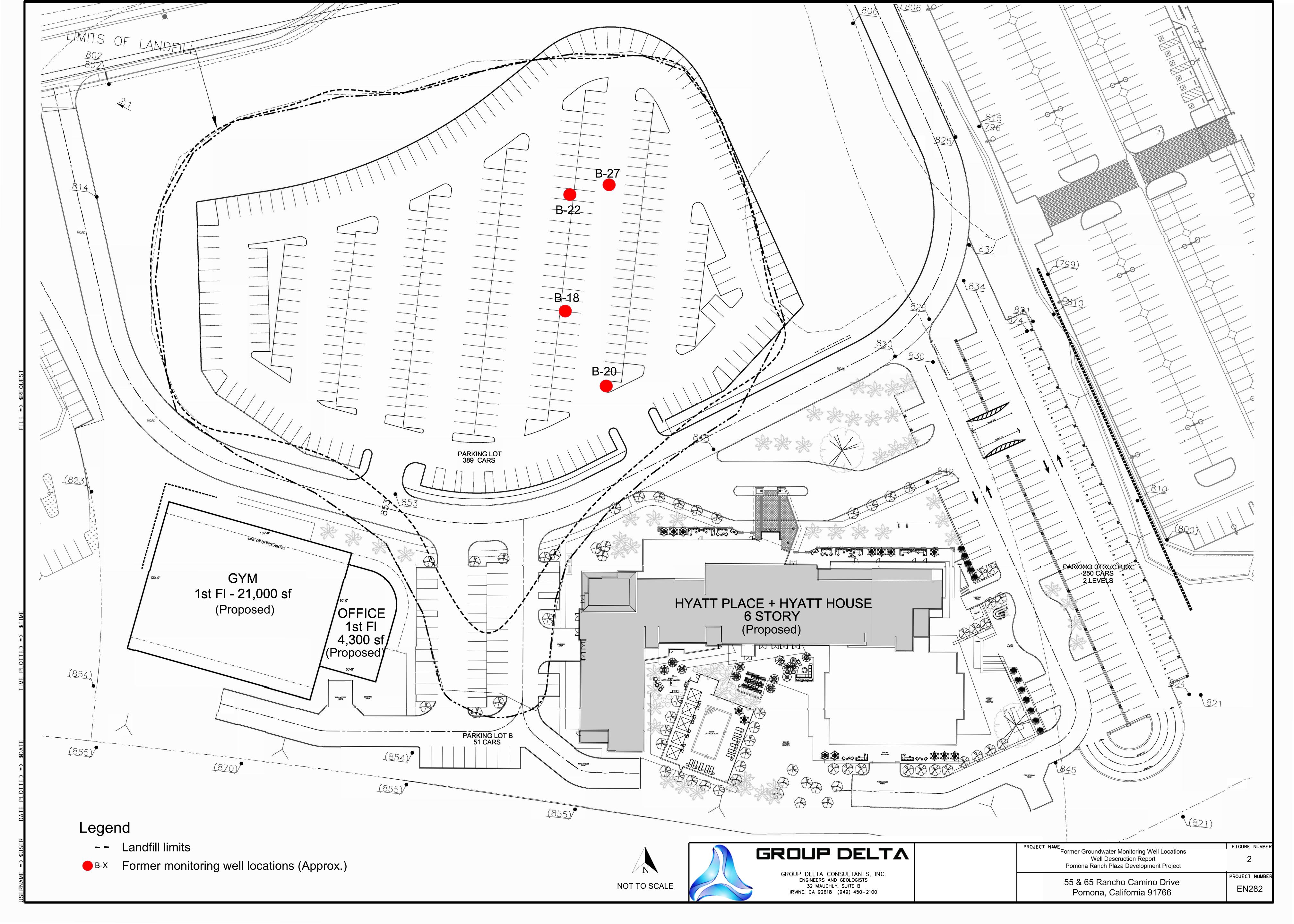


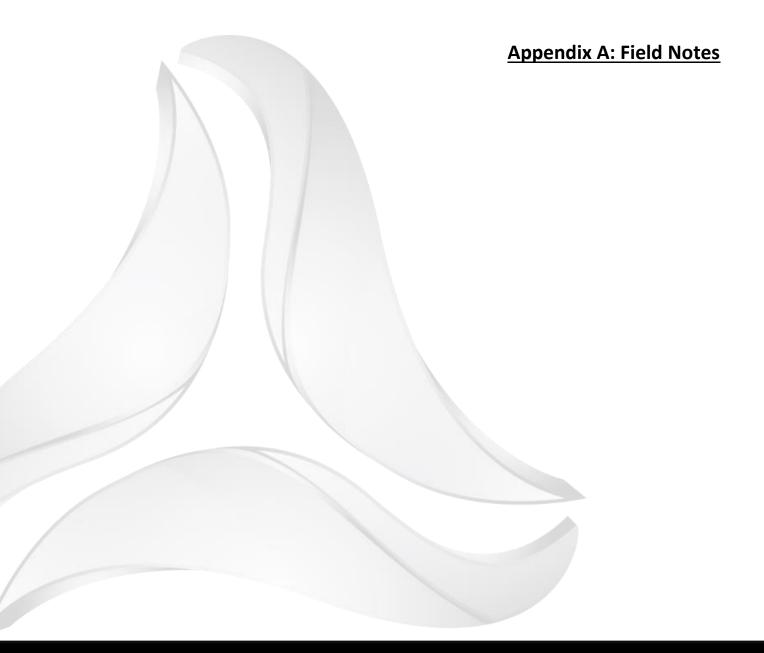
GDC Project No. EN282

Site Location Map

Well Destruction Report
Pomona Ranch Plaza Development Project
55 & 65 Rancho Camino Drive

Figure 1





Group Delta

Consultants



| PROJECT | NUMBER: | EN282 DATE: 4-2-18 REPORT NUMBER: - |
|---------------|---|---|
| PROJECT | & LOCATIO | ON: POMONA RANCH LANDFILL CAP WELL ABANDOMINMENT |
| CLIENT: | | YK AMERICA GROUP DELTA FIELD REPRESENTATIVE: E.Smith |
| SUBCONTI | RACTOR: | 2R DRILLING |
| SUBCONT | RACTOR P | ERSONNEL ON SITE: |
| 3RIEF SUM | MARY OF | WORK PERFORMED: Well abandonment of 4 locations VIA pressure |
| gro | ving | |
| START TIME | STOP TIME | DESCRIPTION OF ACTIVTIES: REMARKS |
| 7:00 | | Arnve on site, 2R on site; tailgate |
| 7:30 | | Arnve on site, 2R on site; tailgate 2R MOBS drill rig and support truck up the road to |
| | | the well locations |
| 7:50 | | Set up on B-18 |
| | | · 2R does not have the ability to drill holes in puc (10 |
| | | conductor casings surrounding well casings in order to |
| | | remove |
| | See 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | · GDC will pick up handheld drill motor w/ hole-saw |
| | | bit in order to cut holes into PVC conductor |
| | | so they can be lifted out when drill rig |
| 3:00 | | GDC off site to pick up materials; are on stand-by |
| 1:00 | | GDC on site W/ drill motor and hole-saw bit |
| 7:15 | | remove conductor casing a B-18 |
| 1:45 | | Pressure grout; no drop in fluid; TD 37 ft |
| 0:15 | | over drill and backfill |
| 0:35 | | Set up on B-20 |
|):50 | | remove conductor casing |
| :05 | | pressure grout; no fluid drop; TD 30 ft |
| : 35 | | remove metal conductor (6") and 2 2' long and overdrill |
| | | -photos taken |
| 2:05 | | MOB to B-22 and set up |
| 2:15 | | remove PVC conductor |

Group Delta

Consultants



| PROJECT | NUMBER: | EN282 | DATE: | 4-2-18 | REPOR | RT NUMBER: | _ |
|---------------|--------------|------------------------------|------------|----------------------|-----------|------------------------|------------|
| PROJECT | & LOCATIO | ON: POMONA | RANCH | LANDFILL CAP | WELL | ABANDON | DMENT |
| CLIENT: | 4 | K AMERICA | | GROUP DELTA FI | ELD REPRE | SENTATIVE: | E. Smith |
| SUBCONT | RACTOR: | | R DRILLI | NG | | | |
| SUBCONT | RACTOR P | ERSONNEL ON SITE: | | | | | |
| BRIEF SUI | MMARY OF | WORK PERFORMED: | Well a | abandonment o | f 4, | ocations | VIA |
| | | WORK PERFORMED: | pressure | e growting | | | |
| START TIME | STOP TIME | | DESC | RIPTION OF ACTIVTIES | S: REMARK | (S | |
| | | | | 0.54 | TA | 27 C | |
| 12:45 | | pressure grou | + ; no + | - Isla drop | IV 3 | 51 ++ | |
| 13:15 | | remove meta 2.5 ft and | | or (6") and : | a' lon | g from a | e depth of |
| | | | | | | | |
| 13:35 | | Set up on | | | | | |
| 13:45 | | remove PVC | conductor | Casing | . Tr | 30 0 | |
| 14:00 | | Pressure grow remove meta | ring; 110 | TIVIA arop | 11/200 | 2 5' | 6 |
| 14:25 | | x 2' bgs | and purdil | 1 | and and | ~ 3 | TIONN |
| | | a bys | Cha presam | | | Wythanker and a second | ···· |
| 14:45 | | clean up and | DEMOB | | | | |
| 15:00 | | GATE locked | and secure | ed, GDC off | site | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| ICLD BEDE | PESENTATIV | VES SIGNATURE: | E/ | P | | DATE: | 4-2-18 |

Appendix B: Photo Log



Photo Number:

1

Date:

4/2/2018

Photo Direction:

north

Description:

Example of well location and conditions prior abandonment. The location in the photo is monitoring well B-20, which provides an example of the 2- inch PVC well casing surrounded by a 10-inch PVC conductor casing.



Photo Number:

2

Date:

4/2/2018

Photo Direction:

north

Description:

Example of 2-inch well casing and 10-inch conductor casing conditions prior to abandonment.

Conductor casings at each location were open as shown in photo and extended approximately 8 feet bgs.



Photo Number:

3

Date:

4/2/2018

Photo Direction:

north

Description:

Example of conductor casing removal prior to pressure grouting.



Photo Number:

4

Date:

4/2/2018

Photo Direction:

south

Description:

Example of the 6-inch steel conductor casing found at each location at a depth of approximately 2 feet bgs. The steel conductor casings were also removed at each location during the well abandonment.



Photo Number:

5

Date:

4/2/2018

Photo Direction:

South, southeast

Description:

Example of monitoring well location after completion of the 5- foot over-drill, grout to 1 foot bgs, and surface completion with rapid set concrete. Monitoring well B-27 is shown in the photo.



Photo Number:

6

Date:

4/2/2018

Photo Direction:

North

Description:

Monitoring well location B-20 after completion of well abandonment.





May 11, 2018

Mr. Ross Geller Applied Planning, Inc. 11762 De Palma Road, 1-C 310 Corona, CA 92883

SUBJECT: POMONA HYATT HOTEL FOCUSED TRAFFIC ASSESSMENT

Dear Mr. Ross Geller:

This letter serves as a supplement to the <u>Pomona Hyatt Place + Hyatt House Traffic Impact Analysis</u> (May 23, 2016, 2016 Traffic Study) prepared as one component of the Certified Pomona Hyatt Hotel Project Environmental Impact Report (Certified EIR). (Specifically, this focused traffic assessment evaluates and compares potential transportation/traffic impacts of the proposed Modified Project (hereafter referred to as the Project) in the context of the previous 2016 Traffic Study. The study area evaluated is consistent with that evaluated in the 2016 Traffic Study (see Exhibit 1).

For the purposes of this assessment, trip generation estimates for the Project reflect the current 10th Edition ITE <u>Trip Generation Manual</u> trip generation rates. The Modified Project would include the development of a 215-room hotel, 95 apartment units, and 46,273 square foot health/fitness club. The 2016 Traffic Study had previously evaluated a 75,000 square foot office building with a 200-room hotel. The 2016 Traffic Study did not identify any potentially significant impacts or mitigation measures at the off-site study area intersections. The results of this focused traffic assessment were compared with the 2016 Traffic Study to determine if there would be new impacts or mitigation measures due to the change in uses proposed by the Project.

PROJECT TRIP GENERATION

Trip generation represents the amount of traffic which is both attracted to and produced by a development. Determining traffic generation for a specific project is therefore based upon forecasting the amount of traffic that is expected to be both attracted to and produced by the specific land uses being proposed for a given development. Trip generation rates and trip generation summary from the 2016 Traffic Study are shown on Table 1. The trip generation from the 2016 Traffic Study is based on the ITE <u>Trip Generation Manual</u> (9th Edition, 2012). As shown on Table 1, the Project was anticipated to generate a net total of 2,689 trip-ends per day on a typical weekday, with 258 AM peak hour trips and 283 PM peak hour trips.



TABLE 1: 2016 TRAFFIC STUDY TRIP GENERATION SUMMARY

| | ITE LU | | AM Peak Hour | | PM Peak Hour | | | Daile | |
|------------------------------------|--------|--------------------|--------------|------|--------------|------|------|-------|-------|
| Land Use | Code | Units ² | ln | Out | Total | ln | Out | Total | Daily |
| Trip Generation Rates ¹ | | | | | | | | | |
| Hotel | 310 | Rooms | 0.31 | 0.22 | 0.53 | 0.31 | 0.29 | 0.60 | 8.17 |
| General Office ³ | 710 | TSF | 1.78 | 0.24 | 2.02 | 0.37 | 1.80 | 2.17 | 14.07 |
| Trip Generation Summary | | | | | | | | | |
| Hotel | 200 | Rooms | 62 | 44 | 106 | 62 | 58 | 120 | 1,634 |
| General Office | 75.0 | TSF | 134 | 18 | 152 | 28 | 135 | 163 | 1,055 |
| 2016 Traffic Study Total | | | 196 | 62 | 258 | 90 | 193 | 283 | 2,689 |

¹ Trip Generation Source: Institute of Transportation Engineers (ITE), <u>Trip Generation Manual</u>, Ninth Edition (2012).

Trip generation rates used to estimate the currently proposed Project traffic are shown in Table 2 along with a summary of the Project's trip generation. The trip generation rates are based upon data collected by ITE for Mid-Rise Residential with 1st Floor Commercial (ITE Land Use Code 231), Hotel (ITE Land Use Code 310), and Health/Fitness Club (ITE Land Use Code 492) land uses in their published <u>Trip Generation Manual</u>, 10th Edition, 2017.

TABLE 2: PROPOSED PROJECT TRIP GENERATION SUMMARY

| | ITE LU | | AM Peak Hour PM Peak Hour | | | our | Daile | | |
|--|-------------|----------------------|---------------------------|-----------------|-------|------|-------|-------|-------|
| Land Use | Code | Units ² | ln | Out | Total | ln | Out | Total | Daily |
| Pr | oject Trip | General | ion Rate | es ¹ | | | | | |
| Mid-Rise Residential with 1st-Floor Commercial | 231 | DU | 0.08 | 0.22 | 0.30 | 0.25 | 0.11 | 0.36 | 3.44 |
| Hotel | 310 | Room | 0.28 | 0.19 | 0.47 | 0.31 | 0.29 | 0.60 | 8.36 |
| Health/Fitness Club ³ | 492 | TSF | 0.67 | 0.64 | 1.31 | 1.97 | 1.48 | 3.45 | 34.50 |
| Proposed | l Project 1 | rip Gen | eration | Summar | у | | | | |
| Mid-Rise Residential with 1st-Floor Commercial | 95 | DU | 8 | 21 | 29 | 24 | 10 | 34 | 327 |
| Internal Capture | with Healt | h Club⁴ | 0 | 0 | 0 | -11 | -4 | -15 | -144 |
| Hotel | 215 | Room | 60 | 41 | 101 | 66 | 63 | 129 | 1,797 |
| Internal Capture | with Healt | h Club⁴ | -1 | 0 | -1 | -3 | -2 | -5 | -70 |
| Health/Fitness Club | 46.273 | TSF | 31 | 30 | 61 | 91 | 69 | 160 | 1,596 |
| Internal Ca | pture with | 1 Hotel 4 | 0 | -1 | -1 | -2 | -3 | -5 | -50 |
| Internal Capture | with Resid | dential ⁴ | 0 | 0 | 0 | -4 | -11 | -15 | -150 |
| Currently Proposed Total | | · | 98 | 91 | 189 | 161 | 122 | 283 | 3,307 |
| Total from 2016 Traffic Study (See Table 2) | | | 196 | 62 | 258 | 90 | 193 | 283 | 2,689 |
| VARIANCE (Proposed - Traffic Study) ⁴ | | | -98 | 29 | -69 | 71 | -71 | 0 | 618 |

¹ Trip Generation Source: Institute of Transportation Engineers (ITE), <u>Trip Generation Manual</u>, Tenth Edition (2017).



² TSF = Thousand Square Feet

³ Trip Generation rates based on the regression equation as opposed to the average rates.

² DU = Dwelling Units; TSF = Thousand Square Feet

 $^{^{\}rm 3}\,$ Daily trip generation rate not available. Estimated at 10 times the PM peak hour rate.

⁴ Internal capture calculated per the ITE's recommended methodology using NCHRP 684 (Internal Trip Capture Estimation Tool).

⁵ Negative value for the variance reflects a reduction from the 2016 Traffic Study.

Mr. Ross Geller Applied Planning, Inc. May 11, 2018 Page 3 of 6

As shown on Table 2, the proposed Project is anticipated to generate a net total of 3,307 trip-ends per day on a typical weekday, with 189 AM peak hour trips and 283 PM peak hour trips. As shown in Table 2, the proposed Project trip generation has an increase of 618 trip-ends per day, with a reduction of 69 AM peak hour trips and 0 PM peak hour trips in comparison to the trip generation evaluated in the 2016 Traffic Study.

PROJECT ONLY TRAFFIC FORECASTS

The assignment of traffic from the Project to the adjoining roadway system is based upon the Project trip generation, trip distribution, and the arterial highway and local street system improvements that would be in place by the time of initial occupancy of the Project. The trip distribution patterns utilized for the purposes of this focused traffic assessment are consistent with those provided in the 2016 Traffic Study. Based on the identified Project traffic generation and trip distribution patterns, Average Daily Traffic (ADT), and AM and PM peak hour traffic volumes are shown on Exhibit 2.

TRAFFIC FORECASTS

EXISTING PLUS PROJECT (E+P) CONDITIONS

This scenario includes Existing traffic volumes from the 2016 Traffic Study plus the currently proposed Project traffic. The ADT volumes and AM and PM peak hour intersection turning movement volumes are shown on Exhibit 3.

OPENING YEAR CUMULATIVE (2020) WITH PROJECT CONDITIONS

The 2016 Traffic Study evaluated an Opening Year of 2018, however, for the purposes of this assessment an additional 2% per year of ambient growth was added to estimate traffic forecasts for Opening Year Cumulative (2020) traffic conditions. The total ambient growth added to the Existing traffic volumes in the 2016 Traffic Study is 10.41 percent. The weekday ADT and AM and PM peak hour traffic volumes which can be expected for Opening Year Cumulative (2020) With Project traffic conditions are shown on Exhibit 4.

HORIZON YEAR (2040) WITH PROJECT CONDITIONS

This scenario includes the refined post-processed Horizon Year (2040) Without Project traffic volumes from the 2016 Traffic Study plus the currently proposed Project traffic. The ADT volumes and AM and PM peak hour traffic volumes for Horizon Year (2040) With Project traffic conditions are shown on Exhibit 5.



Mr. Ross Geller Applied Planning, Inc. May 11, 2018 Page 4 of 6

E+P OPERATIONS ANALYSIS

INTERSECTION OPERATIONS ANALYSIS

The intersection analysis results are summarized in Table 3 for E+P traffic conditions, which indicates that consistent with the 2016 Traffic Study there are no study area intersections anticipated to operate at a deficient LOS for E+P traffic conditions. The intersection operations analysis worksheets for E+P traffic conditions are included in Attachment A.

ROADWAY SEGMENT ANALYSIS

Table 4 summarizes the E+P roadway segment capacity analysis results. As shown on the table, and consistent with the 2016 Traffic Study, all of the study area roadway segments are anticipated to operate at LOS A for E+P traffic conditions during the AM and PM peak hours.

OFF-RAMP QUEUING ANALYSIS

Queuing analysis findings for E+P traffic conditions are presented in Table 5. As shown on Table 4, there are no movements that are anticipated to experience queuing issues during the weekday AM or PM peak hours based on the E+P 95th percentile traffic flows. Worksheets for E+P conditions off-ramp queuing analysis are provided in Attachment B.

OPENING YEAR CUMULATIVE (2020) OPERATIONS ANALYSIS

INTERSECTION OPERATIONS ANALYSIS

The intersection analysis results are summarized in Table 6 for Opening Year Cumulative (2020) With Project traffic conditions, which indicates that consistent with the 2016 Traffic Study there are no study area intersections anticipated to operate at a deficient LOS for Opening Year Cumulative (2020) With Project traffic conditions. The intersection operations analysis worksheets for Opening Year Cumulative (2020) With Project traffic conditions are included in Attachment C.

ROADWAY SEGMENT ANALYSIS

Table 7 summarizes the Opening Year Cumulative (2020) With Project roadway segment capacity analysis results. As shown on the table, and consistent with the 2016 Traffic Study, all of the study area roadway segments are anticipated to operate at LOS A for Opening Year Cumulative (2020) With Project traffic conditions during the AM and PM peak hours.



Mr. Ross Geller Applied Planning, Inc. May 11, 2018 Page 5 of 6

OFF-RAMP QUEUING ANALYSIS

As shown on Table 8, there are no queuing issues anticipated with the addition of Project traffic for Opening Year Cumulative (2020) With Project traffic conditions consistent with the 2016 Traffic Study findings. Worksheets for Opening Year Cumulative (2020) With Project conditions off-ramp queuing analysis are provided in Attachment D.

HORIZON YEAR (2040) OPERATIONS ANALYSIS

INTERSECTION OPERATIONS ANALYSIS

The intersection analysis results are summarized in Table 9 for Horizon Year (2040) With Project traffic conditions, which indicates that consistent with the 2016 Traffic Study there are no study area intersections anticipated to operate at a deficient LOS for Horizon Year (2040) With Project traffic conditions. The intersection operations analysis worksheets for Horizon Year (2040) With Project traffic conditions are included in Attachment E.

ROADWAY SEGMENT ANALYSIS

Table 10 summarizes the Horizon Year (2040) With Project roadway segment capacity analysis results. As shown on the table, and consistent with the 2016 Traffic Study, all of the study area roadway segments are anticipated to operate at LOS A or LOS B for Horizon Year (2040) With Project traffic conditions during the AM and PM peak hours.

OFF-RAMP QUEUING ANALYSIS

As shown on Table 11, there are no queuing issues anticipated with the addition of Project traffic for Horizon Year (2040) With Project traffic conditions consistent with the 2016 Traffic Study findings. Worksheets for Horizon Year (2040) With Project conditions off-ramp queuing analysis are provided in Attachment F.

SITE ADJACENT QUEUES

Based on the site adjacent queues (see Attachment G), the only recommendation to the intersection of Rancho Camino Drive and Rio Rancho Road is to modify the westbound left turn pocket from 170-feet of accommodate 250-feet of storage.



Mr. Ross Geller Applied Planning, Inc. May 11, 2018 Page 6 of 6

If you have any questions, please contact me directly at (949) 336-5982.

Respectfully submitted,

URBAN CROSSROADS, INC.

Charlene So, PE Senior Associate

Intersection Analysis for E+P Conditions

Table 3

| | | | E+P | | | | |
|---|-------------------------------------|----------------------|------|----------|---------|----|--|
| # | Intersection | Traffic | Del | Level of | | | |
| # | intersection | Control ² | (se | cs.) | Service | | |
| | | | AM | PM | AM | PM | |
| 1 | Phillips Ranch Rd. / Rio Rancho Rd. | TS | 30.9 | 22.6 | С | С | |
| 2 | Phillips Ranch Rd. / SR-60 WB Ramps | TS | 8.4 | 8.4 | Α | Α | |
| 3 | Phillips Ranch Rd. / SR-60 EB Ramps | TS | 10.1 | 10.5 | В | В | |
| 4 | Rancho Camino Dr. / Rio Rancho Dr. | TS | 11.2 | 24.0 | В | С | |
| 5 | Driveway 1 / Rancho Camino Dr. | <u>CSS</u> | 10.5 | 10.9 | В | В | |
| 6 | Driveway 2 / Rancho Camino Dr. | <u>CSS</u> | 9.6 | 9.6 | Α | Α | |
| 7 | Lone Ridge Rd. / Rio Rancho Rd. | TS | 27.0 | 21.0 | С | С | |
| 8 | SR-71 SB Ramps / Rio Rancho Rd. | TS | 13.5 | 17.1 | В | В | |
| 9 | SR-71 NB Ramps / Rio Rancho Rd. | TS | 28.5 | 18.7 | С | В | |

Delay and level of service calculated using the following analysis software:

Synchro (Version 10). Per the 2010 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with a traffic signal. Per the 2010 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control.



² TS = Traffic Signal; CSS = Cross-Street Stop

Roadway Segment Capacity Analysis for E+P Conditions

Table 4

| | | | Roadway | GP Roadway | Roadway | E+P AM Peak Hour | | E+P PM Peak Hour | | ur | |
|---|--------------------|-------------------------------------|---------|----------------|-----------------------|---------------------|------|---------------------|--------|------|-----|
| # | Roadway | Segment Limits | Section | Classification | Capacity ¹ | Volume | V/C | LOS | Volume | V/C | LOS |
| 1 | Phillips Ranch Rd. | Rio Rancho Rd. to SR-60 WB Ramps | 4 | Minor Arterial | 6,400 | 2,591 | 0.40 | Α | 1,819 | 0.28 | Α |
| 2 | Rio Rancho Rd. | East of Phillips Ranch Rd. | 5 | Major Arterial | 8,000 | 1,973 | 0.25 | Α | 1,246 | 0.16 | Α |
| 3 | | West of Rancho Camino Dr. | 5 | Major Arterial | 8,000 | 1,838 | 0.23 | Α | 1,343 | 0.17 | Α |
| 4 | | Rancho Camino Dr. to Lone Ridge Rd. | 5 | Major Arterial | 8,000 | 1,918 | 0.24 | Α | 1,600 | 0.20 | Α |
| 5 | | Lone Ridge Rd. to SR-71 SB Ramps | 5 | Major Arterial | 8,000 | 2,184 | 0.27 | Α | 2,223 | 0.28 | Α |
| 6 | | SR-71 SB Ramps to SR-71 NB Ramp | 4 | Major Arterial | 6,400 | 2,414 | 0.38 | Α | 2,524 | 0.39 | Α |
| 7 | Rancho Camino Dr. | South of Rio Rancho Rd. | 2 | Collector | 3,200 | 572 | 0.18 | Α | 847 | 0.26 | Α |
| 8 | | West of Driveway 1 | 2 | Collector | 3,200 | 337 | 0.11 | Α | 400 | 0.13 | Α |
| 9 | | Driveway 1 to Driveway 2 | 2 | Collector | 3,200 | 214 | 0.07 | Α | 215 | 0.07 | Α |

¹ Per the Los Angeles County Congestion Management Program (CMP), a capacity of 1,600 vehicles per hour per through traffic lane has been used. Level of service has been based upon V/C ratios.



Peak Hour Off-Ramp Queuing Analysis for E+P Conditions

Table 5

| | | | E+P | | | | | |
|-------------------------------------|----------|-----------------|--------------------------|---------------------|------------------|------------------|--|--|
| | | | 95 th Percer | | | | | |
| | | Stacking | Distance Required (Feet) | | Acceptable? 1 | | | |
| Intersection | Movement | Distance (Feet) | AM Peak | PM Peak Hour | AM | PM | | |
| SR-60 WB Ramps / Phillips Ranch Rd. | | | | | | | | |
| | WBL | 1,620 | 90 | 137 | Yes | Yes | | |
| | WBR | 1,025 | 81 | 53 | Yes | Yes | | |
| SR-60 EB Ramps / Phillips Ranch Rd. | | | | | | | | |
| | EBL | 1,430 | 168 ² | 189 | Yes | Yes | | |
| | EBR | 915 | 155 ² | 147 | Yes | Yes | | |
| SR-71 SB Ramps / Rio Rancho Rd. | | | | | | | | |
| | SBL | 1,275 | 94 | 78 | Yes | Yes | | |
| | SBL/R | 360 | 53 | 28 | Yes | Yes | | |
| | SBR | 160 | 38 | 26 | Yes | Yes | | |
| SR-71 NB Ramps / Rio Rancho Rd. | | | | | | | | |
| | NBL | 1,750 | 460 ² | 180 | Yes | Yes | | |
| | NBL/R | 1,750 | 406 ² | 229 | Yes | Yes | | |
| | NBR | 120 | 367 ² | 226 | Yes ³ | Yes ³ | | |

¹ Stacking Distance is acceptable if the required stacking distance is less than or equal to the stacking distance provided. An additional 15 feet of stacking which is assumed to be provided in the transition for turn pockets is reflected in the stacking distance shown on this table, where applicable.



 $^{^{2}\,}$ 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.

³ Although the 95th percentile queue is anticipated to exceed the available storage for the turn lane, the adjacent through lane has sufficient storage to accommodate any spillover without spilling back and affecting the SR-71 Freeway mainline.

Intersection Analysis for Opening Year Cumulative (2020) Conditions

| | | | 202 | 20 With P | roject | |
|---|-------------------------------------|----------------------|------|-----------------|--------|-------|
| # | Intersection | Traffic | Del | ay ¹ | Leve | el of |
| # | intersection | Control ² | (se | cs.) | Ser | vice |
| | | | AM | PM | AM | PM |
| 1 | Phillips Ranch Rd. / Rio Rancho Rd. | TS | 48.7 | 32.7 | D | С |
| 2 | Phillips Ranch Rd. / SR-60 WB Ramps | TS | 13.9 | 12.0 | В | В |
| 3 | Phillips Ranch Rd. / SR-60 EB Ramps | TS | 24.0 | 16.3 | С | В |
| 4 | Rancho Camino Dr. / Rio Rancho Dr. | TS | 14.4 | 16.3 | В | В |
| 5 | Driveway 1 / Rancho Camino Dr. | <u>CSS</u> | 10.6 | 11.0 | В | В |
| 6 | Driveway 2 / Rancho Camino Dr. | <u>CSS</u> | 9.7 | 9.7 | Α | Α |
| 7 | Lone Ridge Rd. / Rio Rancho Rd. | TS | 33.9 | 32.8 | С | С |
| 8 | SR-71 SB Ramps / Rio Rancho Rd. | TS | 19.8 | 27.6 | В | С |
| 9 | SR-71 NB Ramps / Rio Rancho Rd. | TS | 46.1 | 46.2 | D | D |

Delay and level of service calculated using the following analysis software:

Synchro (Version 10). Per the 2010 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with a traffic signal. Per the 2010 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control.



² TS = Traffic Signal; CSS = Cross-Street Stop

Roadway Segment Capacity Analysis for Opening Year Cumulative (2020) Conditions

| | | | Roadway | GP Roadway | Roadway | | 20 WP eak Ho | ur | | 20 WP eak Ho | ur |
|---|--------------------|-------------------------------------|---------|----------------|-----------------------|--------|-----------------|-----|--------|-----------------|-----|
| # | Roadway | Segment Limits | Section | Classification | Capacity ¹ | Volume | V/C | LOS | Volume | V/C | LOS |
| 1 | Phillips Ranch Rd. | Rio Rancho Rd. to SR-60 WB Ramps | 4 | Minor Arterial | 6,400 | 3,172 | 0.50 | Α | 2,455 | 0.38 | Α |
| 2 | | East of Phillips Ranch Rd. | 5 | Major Arterial | 8,000 | 2,531 | 0.32 | Α | 1,891 | 0.24 | Α |
| 3 | | West of Rancho Camino Dr. | 5 | Major Arterial | 8,000 | 2,380 | 0.30 | Α | 2,175 | 0.27 | Α |
| 4 | Rio Rancho Rd. | Rancho Camino Dr. to Lone Ridge Rd. | 5 | Major Arterial | 8,000 | 2,536 | 0.32 | Α | 2,549 | 0.32 | Α |
| 5 | | Lone Ridge Rd. to SR-71 SB Ramps | 5 | Major Arterial | 8,000 | 2,936 | 0.37 | Α | 3,437 | 0.43 | Α |
| 6 | | SR-71 SB Ramps to SR-71 NB Ramp | 4 | Major Arterial | 6,400 | 3,395 | 0.53 | Α | 3,919 | 0.61 | Α |
| 7 | | South of Rio Rancho Rd. | 2 | Collector | 3,200 | 830 | 0.26 | Α | 1,218 | 0.38 | Α |
| 8 | Rancho Camino Dr. | West of Driveway 1 | 2 | Collector | 3,200 | 352 | 0.11 | Α | 412 | 0.13 | Α |
| 9 | | Driveway 1 to Driveway 2 | 2 | Collector | 3,200 | 229 | 0.07 | Α | 227 | 0.07 | Α |

¹ Per the Los Angeles County Congestion Management Program (CMP), a capacity of 1,600 vehicles per hour per through traffic lane has been used. Level of service has been based upon V/c ratios.



Peak Hour Off-Ramp Queuing Analysis for Opening Year Cumulative (2020) Conditions

| | | | | 2020 With Proje | ct | |
|-------------------------------------|----------|-----------------|-------------------------|---------------------|------------------|------------------|
| | | | 95 th Percer | ntile Stacking | | |
| | | Stacking | Distance Re | equired (Feet) | Accept | table? 1 |
| Intersection | Movement | Distance (Feet) | AM Peak | PM Peak Hour | AM | PM |
| SR-60 WB Ramps / Phillips Ranch Rd. | | | | | | |
| | WBL | 1,620 | 107 | 150 | Yes | Yes |
| | WBR | 1,025 | 113 | 122 | Yes | Yes |
| SR-60 EB Ramps / Phillips Ranch Rd. | | | | | | |
| | EBL | 1,430 | 277 ² | 377 ² | Yes | Yes |
| | EBR | 915 | 235 ² | 194 | Yes | Yes |
| SR-71 SB Ramps / Rio Rancho Rd. | | | | | | |
| | SBL | 1,275 | 189 | 254 ² | Yes | Yes |
| | SBL/R | 360 | 161 | 147 | Yes | Yes |
| | SBR | 160 | 118 | 104 | Yes | Yes |
| SR-71 NB Ramps / Rio Rancho Rd. | | | | | | |
| | NBL | 1,750 | 739 ² | 409 ² | Yes | Yes |
| | NBL/R | 1,750 | 813 ² | 669 ² | Yes | Yes |
| | NBR | 120 | 770 ² | 624 ² | Yes ³ | Yes ³ |

¹ Stacking Distance is acceptable if the required stacking distance is less than or equal to the stacking distance provided. An additional 15 feet of stacking which is assumed to be provided in the transition for turn pockets is reflected in the stacking distance shown on this table, where applicable.



 $^{^{\}rm 2}\,$ 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.

³ Although the 95th percentile queue is anticipated to exceed the available storage for the turn lane, the adjacent through lane has sufficient storage to accommodate any spillover without spilling back and affecting the SR-71 Freeway mainline.

Intersection Analysis for Horizon Year (2040) Conditions

| | | | 204 | 10 With P | roject | |
|---|-------------------------------------|----------------------|------|-----------|--------|-------|
| # | Intersection | Traffic | Del | ay¹ | Leve | el of |
| π | intersection | Control ² | (se | cs.) | Ser | vice |
| | | | AM | PM | AM | PM |
| 1 | Phillips Ranch Rd. / Rio Rancho Rd. | TS | 53.0 | 47.5 | D | D |
| 2 | Phillips Ranch Rd. / SR-60 WB Ramps | TS | 44.4 | 19.7 | D | В |
| 3 | Phillips Ranch Rd. / SR-60 EB Ramps | TS | 27.4 | 20.7 | С | С |
| 4 | Rancho Camino Dr. / Rio Rancho Dr. | TS | 21.8 | 39.7 | С | D |
| 5 | Driveway 1 / Rancho Camino Dr. | <u>CSS</u> | 10.7 | 11.1 | В | В |
| 6 | Driveway 2 / Rancho Camino Dr. | <u>CSS</u> | 9.9 | 9.7 | Α | Α |
| 7 | Lone Ridge Rd. / Rio Rancho Rd. | TS | 34.4 | 35.1 | С | D |
| 8 | SR-71 SB Ramps / Rio Rancho Rd. | TS | 23.8 | 33.0 | С | С |
| 9 | SR-71 NB Ramps / Rio Rancho Rd. | TS | 50.2 | 48.7 | D | D |

Delay and level of service calculated using the following analysis software:

Synchro (Version 10). Per the 2010 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with a traffic signal. Per the 2010 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control.



² TS = Traffic Signal; CSS = Cross-Street Stop

Roadway Segment Capacity Analysis for Horizon Year (2040) Conditions

| | | | Roadway | GP Roadway | Roadway | | 10 WP eak Ho | ur | | 10 WP eak Ho | ur |
|---|--------------------|-------------------------------------|---------|----------------|-----------------------|--------|-----------------|-----|--------|-----------------|-----|
| # | Roadway | Segment Limits | Section | Classification | Capacity ¹ | Volume | V/C | LOS | Volume | V/C | LOS |
| 1 | Phillips Ranch Rd. | Rio Rancho Rd. to SR-60 WB Ramps | 4 | Minor Arterial | 6,400 | 3,823 | 0.60 | Α | 3,061 | 0.48 | Α |
| 2 | | East of Phillips Ranch Rd. | 5 | Major Arterial | 8,000 | 2,726 | 0.34 | Α | 2,010 | 0.25 | Α |
| 3 | | West of Rancho Camino Dr. | 5 | Major Arterial | 8,000 | 2,619 | 0.33 | Α | 2,435 | 0.30 | Α |
| 4 | Rio Rancho Rd. | Rancho Camino Dr. to Lone Ridge Rd. | 5 | Major Arterial | 8,000 | 2,851 | 0.36 | Α | 3,127 | 0.39 | Α |
| 5 | | Lone Ridge Rd. to SR-71 SB Ramps | 5 | Major Arterial | 8,000 | 3,444 | 0.43 | Α | 3,925 | 0.49 | Α |
| 6 | | SR-71 SB Ramps to SR-71 NB Ramp | 4 | Major Arterial | 6,400 | 3,765 | 0.59 | Α | 4,440 | 0.69 | В |
| 7 | | South of Rio Rancho Rd. | 2 | Collector | 3,200 | 972 | 0.30 | Α | 1,810 | 0.57 | Α |
| 8 | Rancho Camino Dr. | West of Driveway 1 | 2 | Collector | 3,200 | 367 | 0.11 | Α | 424 | 0.13 | Α |
| 9 | | Driveway 1 to Driveway 2 | 2 | Collector | 3,200 | 244 | 0.08 | Α | 239 | 0.07 | Α |

¹ Per the Los Angeles County Congestion Management Program (CMP), a capacity of 1,600 vehicles per hour per through traffic lane has been used. Level of service has been based upon V/C ratios.



Peak Hour Off-Ramp Queuing Analysis for Horizon Year (2040) Conditions

| | | | | 2040 With Proje | ct | |
|-------------------------------------|----------|-----------------|-------------------------|------------------|------------------|--------------------|
| | | | 95 th Percer | ntile Stacking | | |
| | | Stacking | Distance Re | equired (Feet) | Accept | able? ¹ |
| Intersection | Movement | Distance (Feet) | AM Peak | PM Peak Hour | AM | PM |
| SR-60 WB Ramps / Phillips Ranch Rd. | | | | | | |
| | WBL | 1,620 | 300 ² | 218 ² | Yes | Yes |
| | WBR | 1,025 | 204 ² | 171 | Yes | Yes |
| SR-60 EB Ramps / Phillips Ranch Rd. | | | | | | |
| | EBL | 1,430 | 411 2 | 411 ² | Yes | Yes |
| | EBR | 915 | 436 ² | 280 ² | Yes | Yes |
| SR-71 SB Ramps / Rio Rancho Rd. | | | | | | |
| | SBL | 1,275 | 243 ² | 387 ² | Yes | Yes |
| | SBL/R | 360 | 176 | 314 ² | Yes | Yes |
| | SBR | 160 | 144 | 217 ² | Yes | Yes ³ |
| SR-71 NB Ramps / Rio Rancho Rd. | | | | | | |
| | NBL | 1,750 | 735 ² | 456 ² | Yes | Yes |
| | NBL/R | 1,750 | 881 ² | 574 ² | Yes | Yes |
| | NBR | 120 | 851 ² | 518 ² | Yes ³ | Yes ³ |

¹ Stacking Distance is acceptable if the required stacking distance is less than or equal to the stacking distance provided. An additional 15 feet of stacking which is assumed to be provided in the transition for turn pockets is reflected in the stacking distance shown on this table, where applicable.

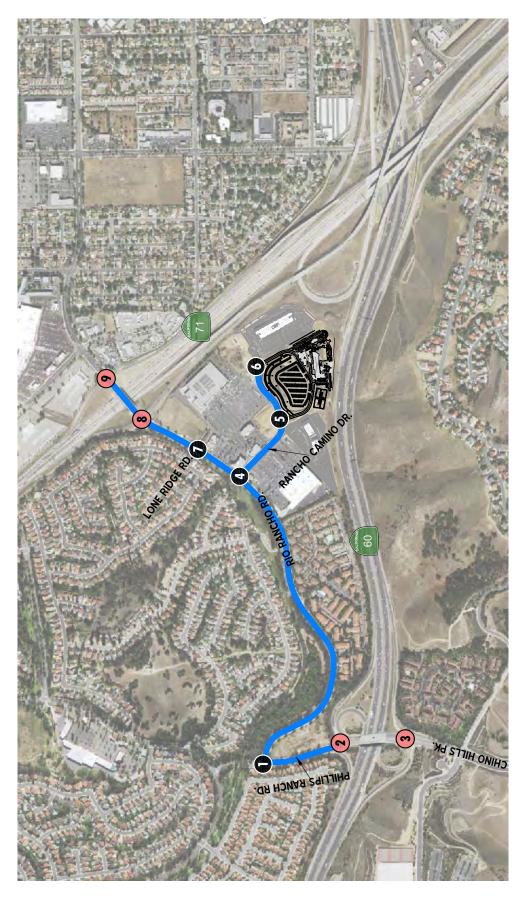


 $^{^{\}rm 2}\,$ 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.

³ Although the 95th percentile queue is anticipated to exceed the available storage for the turn lane, the adjacent through lane has sufficient storage to accommodate any spillover without spilling back and affecting the SR-71 Freeway mainline.

CROSSROADS

EXHIBIT 1: LOCATION MAP



LEGEND:

- = EXISTING INTERSECTION ANALYSIS LOCATION
 - CMP INTERSECTION ANALYSIS LOCATION
- = ROADWAY SEGMENT ANALYSIS LOCATION



0.9 0.3 Phillips Ranch Rd. & 2 Phillips Ranch Rd. & 4 Phillips Ranch Rd. & Rancho Camino Dr. & Rio Rancho Rd. SR-60 WB Ramps SR-60 EB Ramps Rio Rancho Rd. 18(24) 2(6) 9(0) **-**-0(0) 2(2) -0(0) -64(107) 22(31) **-**0(0) 21(30) 0(0)-Ò(0) 25(38) 27(41)-24(32) 60(81) SR-71 NB Ramps & Rio Rancho Rd. Driveway 2 & Rancho Camino Dr. Lone Ridge Rd. & Rio Rancho Rd. SR-71 SB Ramps & Rio Rancho Rd. Driveway 1 & 6 Rancho Camino Dr. 8 -0(0) **-**-31(43) **-**-0(0) **-** 64(107) **-**42(71) **4**—0(0) **√**-0(0) **√**0(0) -0(0) -0(0) **←**11(23) 0(0) 35(55)→ 0(0)-32(43)→ 20(27) 63(106)—_v (0)0 (0)0 35(55)-60(81)→ 000 28(38)— 12(15)-31(43) 0(0) 31(49) 0(0) 0(0) 0(0)-

EXHIBIT 2: CURRENTLY PROPOSED PROJECT TRAFFIC VOLUMES



10.0 = VEHICLES PER DAY (1000'S)

NOM - NOMINAL, LESS THAN 50 VEHICLES PER DAY





RIO RANCHO RD Phillips Ranch Rd. & 2 Phillips Ranch Rd. & 4 Phillips Ranch Rd. & Rancho Camino Dr. & Rio Rancho Rd. SR-60 WB Ramps SR-60 EB Ramps Rio Rancho Rd. -597(226) -791(752) ←136(295) ←781(690) 537(231) -170(207) **-**1066(445) 783(277) <u>~126(233)</u> —208(273) 235(359) 304(368) 526(603)→ 141(103)-1366(507)-444(167)-105(192) 118(279) Lone Ridge Rd. & Rio Rancho Rd. SR-71 SB Ramps & Rio Rancho Rd. SR-71 NB Ramps & Rio Rancho Rd. 5 Driveway 1 & Rancho Camino Dr. Driveway 2 & Rancho Camino Dr. 6 8 ¹³²⁽¹¹⁵⁾ -2(0) -105(92) ←59(19) ←15(6) ←63(43) —37(72) —1204(679) —170(323) **-**42(149) √-0(0) **←**1280(958) **←**423(690) —295(137) —1200(1350) **-**-11(106) **,**−0(0) 137(110)—[▲] 574(765)→ 606(784)→ 172(66)→ 137(11)→ 25(43)--(0)0 -(0)0 63(106)— 35(55)-31(43) 601(797)-11(20) 6(4) 109(309) 167(365)-503(299) 70(122) 968(682) 18(42)—

EXHIBIT 3: E+P TRAFFIC VOLUMES









RIO RANCHO RD 10.0 Phillips Ranch Rd. & 2 Phillips Ranch Rd. & 4 Phillips Ranch Rd. & Rancho Camino Dr. & 3 Rio Rancho Rd. SR-60 WB Ramps SR-60 EB Ramps Rio Rancho Rd. ⁴—705(339) ←1008(928) ⁴—168(340) ←993(845) -635(346) **-**195(271) **-**1308(744) -987(449) *—*153(257) *—*338(355) 325(535) 735(1009)-336(416)-210(149)-884(573) 575(614) 127(273) Lone Ridge Rd. & Rio Rancho Rd. SR-71 SB Ramps & Rio Rancho Rd. SR-71 NB Ramps & Rio Rancho Rd. 5 Driveway 1 & Rancho Camino Dr. Driveway 2 & Rancho Camino Dr. 6 8 -175(176)'—48(86) **4**43(160) √0(0) **←**1695(1436) **←**585(878) ⁴—360(243) **←**1696(1942) --12(117) **←**1538(1005) **,**—0(0) <u>,—</u>285(525) 28(48)— 186(67)→ 151(12)→ 864(1328)→ 163(179)*—* 43(74)-7(4)-160(435)--(0)0 -(0)0 953(1425)-63(106)— 35(55)-31(43) 826(1330)-203(492)-584(372) 77(135) 1138(820) 35(71)-

EXHIBIT 4: OPENING YEAR CUMULATIVE (2020) WITH PROJECT TRAFFIC VOLUMES









16.4 Phillips Ranch Rd. & 2 Phillips Ranch Rd. & 4 Phillips Ranch Rd. & Rancho Camino Dr. & Rio Rancho Rd. SR-60 WB Ramps SR-60 EB Ramps Rio Rancho Rd. 4-1179(1078) 4-358(517) ^—995(455) *→*−1249(1096) ⁴—689(369) √1064(474) **←**1125(751) **←**359(593) <u>,—</u>228(342) 347(568) 835(1070)→ 1368(1189)-930(505)-1952(1126)-547(244)-407(474)-221(225)-149(334) 243(658) SR 71 SB Ramps & Rio Rancho Rd. Lone Ridge Rd. & Rio Rancho Rd. SR-71 NB Ramps & Rio Rancho Rd. 5 Driveway 1 & Rancho Camino Dr. Driveway 2 & Rancho Camino Dr. 6 8 -285(308) -10(1) -262(370) ←79(39) ←18(14) ←86(61) ^_221(94) **-**44(171) √-0(0) **←**1400(1471) **←**627(848) --13(128) 4-470(257) **-**−1361(1229) **,**−0(0) ,—102(À57) **←**1396(1923) 632(397)* 84(147)** 1236(685)** 204(187)—[∲] 1010(1678)→ 30(103)— 951(1496)→ 200(68)→ **165(13)**→ -(0)0 -(0)0 1011(1̀504)́ → 44(76) 10(20) 171(466) 63(106)— 35(55)-31(43) 317(535)— 37(121)-

EXHIBIT 5: HORIZON YEAR (2040) WITH PROJECT TRAFFIC VOLUMES



10.0 = VEHICLES PER DAY (1000'S)





ATTACHMENT A

E+P HCM ANALYSIS WORKSHEETS



| Movement WBL WBR NBT NBR SBL SBT Lane Configurations 11 17 14 17 14 17 14 17 14 17 14 17 14 |
|---|
| Lane Configurations 11 7 14 7 14 Traffic Volume (veh/h) 783 537 788 416 237 604 Future Volume (veh/h) 783 537 788 416 237 604 Number 3 18 2 12 1 6 Initial Q (Qb), veh 0 0 0 0 0 |
| Traffic Volume (veh/h) 783 537 788 416 237 604 Future Volume (veh/h) 783 537 788 416 237 604 Number 3 18 2 12 1 6 Initial Q (Qb), veh 0 0 0 0 0 |
| Future Volume (veh/h) 783 537 788 416 237 604 Number 3 18 2 12 1 6 Initial Q (Qb), veh 0 0 0 0 0 |
| Number 3 18 2 12 1 6 nitial Q (Qb), veh 0 0 0 0 |
| nitial Q (Qb), veh 0 0 0 0 |
| |
| |
| Parking Bus, Adj 1.00 1.00 1.00 1.00 1.00 |
| Adj Sat Flow, veh/h/ln 1800 1800 1800 1800 1800 1800 |
| Adj Flow Rate, veh/h 851 329 857 270 258 657 |
| Adj No. of Lanes 2 2 2 1 1 2 |
| Peak Hour Factor 0.92 0.92 0.92 0.92 0.92 |
| Percent Heavy Veh, % 0 0 0 0 0 |
| Cap, veh/h 911 914 1279 541 289 2093 |
| Arrive On Green 0.30 0.30 0.36 0.36 0.18 0.58 |
| Sat Flow, veh/h 3051 3060 3600 1521 1611 3600 |
| Grp Volume(v), veh/h 851 329 857 270 258 657 |
| Grp Sat Flow(s),veh/h/ln 1526 1530 1800 1521 1611 1800 |
| 2 Serve(g_s), s 24.4 7.6 18.1 12.5 14.1 8.4 |
| Cycle Q Clear(g_c), s 24.4 7.6 18.1 12.5 14.1 8.4 |
| Prop In Lane 1.00 1.00 1.00 1.00 |
| _ane Grp Cap(c), veh/h 911 914 1279 541 289 2093 |
| V/C Ratio(X) 0.93 0.36 0.67 0.50 0.89 0.31 |
| Avail Cap(c_a), veh/h 936 938 1279 541 319 2093 |
| HCM Platoon Ratio 1.00 1.00 1.00 1.00 1.00 |
| Jpstream Filter(I) 1.00 1.00 1.00 1.00 1.00 |
| Uniform Delay (d), s/veh 30.7 24.8 24.5 22.7 36.1 9.7 |
| ncr Delay (d2), s/veh 15.3 0.1 2.8 3.3 22.9 0.4 |
| nitial Q Delay(d3),s/veh 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0. |
| %ile BackOfQ(50%),veh/ln 12.2 3.2 9.4 5.7 8.1 4.2 |
| LnGrp Delay(d),s/veh 46.0 24.9 27.3 26.0 59.0 10.0 LnGrp LOS D C C E B |
| |
| Approach Vol, veh/h 1180 1127 915 |
| Approach Delay, s/veh 40.1 27.0 23.9 Approach LOS D C C |
| Approach LOS D C C |
| Timer 1 2 3 4 5 6 7 8 |
| Assigned Phs 1 2 6 8 |
| Phs Duration (G+Y+Rc), s 20.3 37.4 57.7 32.3 |
| Change Period (Y+Rc), s * 4.2 5.4 5.4 5.4 |
| Max Green Setting (Gmax), s * 18 29.6 51.6 27.6 |
| Max Q Clear Time (g_c+I1), s 16.1 20.1 10.4 26.4 |
| Green Ext Time (p_c), s 0.1 3.1 2.9 0.5 |
| ntersection Summary |
| ICM 2010 Ctrl Delay 30.9 |
| HCM 2010 LOS C |
| Notes |

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|------------------------------|-----|----------|-----|------|----------|------|------|----------|-------------|-------------|------------|----------|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | | | ሻ | | 7 | | ^ | 7 | | ∱ } | |
| Traffic Volume (veh/h) | 0 | 0 | 0 | 126 | 0 | 170 | 0 | 1034 | 566 | 0 | 791 | 597 |
| Future Volume (veh/h) | 0 | 0 | 0 | 126 | 0 | 170 | 0 | 1034 | 566 | 0 | 791 | 597 |
| Number | | | | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | | | | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | | | | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | | | | 1748 | 0 | 1698 | 0 | 1765 | 1765 | 0 | 1731 | 1800 |
| Adj Flow Rate, veh/h | | | | 137 | 0 | 132 | 0 | 1124 | 0 | 0 | 860 | 649 |
| Adj No. of Lanes | | | | 1 | 0 | 1 | 0 | 2 | 1 | 0 | 2 | 0 |
| Peak Hour Factor | | | | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | | | | 3 | 0 | 6 | 0 | 2 | 2 | 0 | 4 | 4 |
| Cap, veh/h | | | | 258 | 0 | 238 | 0 | 2289 | 973 | 0 | 1211 | 879 |
| Arrive On Green | | | | 0.16 | 0.00 | 0.16 | 0.00 | 1.00 | 0.00 | 0.00 | 0.65 | 0.65 |
| Sat Flow, veh/h | | | | 1564 | 0 | 1443 | 0 | 3529 | 1500 | 0 | 1868 | 1355 |
| Grp Volume(v), veh/h | | | | 137 | 0 | 132 | 0 | 1124 | 0 | 0 | 794 | 715 |
| Grp Sat Flow(s), veh/h/ln | | | | 1564 | 0 | 1443 | 0 | 1765 | 1500 | 0 | 1731 | 1492 |
| Q Serve(g_s), s | | | | 4.8 | 0.0 | 5.0 | 0.0 | 0.0 | 0.0 | 0.0 | 17.9 | 19.4 |
| Cycle Q Clear(g_c), s | | | | 4.8 | 0.0 | 5.0 | 0.0 | 0.0 | 0.0 | 0.0 | 17.9 | 19.4 |
| Prop In Lane | | | | 1.00 | | 1.00 | 0.00 | | 1.00 | 0.00 | | 0.91 |
| Lane Grp Cap(c), veh/h | | | | 258 | 0 | 238 | 0 | 2289 | 973 | 0 | 1122 | 967 |
| V/C Ratio(X) | | | | 0.53 | 0.00 | 0.55 | 0.00 | 0.49 | 0.00 | 0.00 | 0.71 | 0.74 |
| Avail Cap(c_a), veh/h | | | | 370 | 0 | 342 | 0 | 2289 | 973 | 0 | 1122 | 967 |
| HCM Platoon Ratio | | | | 1.00 | 1.00 | 1.00 | 1.00 | 2.00 | 2.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | | | | 1.00 | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | | | | 22.9 | 0.0 | 23.0 | 0.0 | 0.0 | 0.0 | 0.0 | 6.8 | 7.1 |
| Incr Delay (d2), s/veh | | | | 0.6 | 0.0 | 8.0 | 0.0 | 8.0 | 0.0 | 0.0 | 3.8 | 5.0 |
| Initial Q Delay(d3),s/veh | | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | | | | 2.1 | 0.0 | 2.1 | 0.0 | 0.2 | 0.0 | 0.0 | 9.6 | 9.1 |
| LnGrp Delay(d),s/veh | | | | 23.6 | 0.0 | 23.8 | 0.0 | 8.0 | 0.0 | 0.0 | 10.6 | 12.2 |
| LnGrp LOS | | | | С | | С | | Α | | | В | В |
| Approach Vol, veh/h | | | | | 269 | | | 1124 | | | 1509 | |
| Approach Delay, s/veh | | | | | 23.7 | | | 0.8 | | | 11.3 | |
| Approach LOS | | | | | С | | | Α | | | В | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | | 2 | | | | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | | 44.3 | | | | 44.3 | | 15.7 | | | | |
| Change Period (Y+Rc), s | | 5.4 | | | | 5.4 | | 5.8 | | | | |
| Max Green Setting (Gmax), s | | 34.6 | | | | 34.6 | | 14.2 | | | | |
| Max Q Clear Time (g_c+I1), s | | 2.0 | | | | 21.4 | | 7.0 | | | | |
| Green Ext Time (p_c), s | | 5.8 | | | | 6.0 | | 0.2 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 8.4 | | | | | | | | | |
| HCM 2010 LOS | | | Α | | | | | | | | | |

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|------------------------------|------|----------|------|------|----------|------|------|----------|------|----------|----------|------|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | * | | 7 | | | | | ^ | 7 | | ^ | 7 |
| Traffic Volume (veh/h) | 235 | 0 | 304 | 0 | 0 | 0 | 0 | 1366 | 444 | 0 | 781 | 136 |
| Future Volume (veh/h) | 235 | 0 | 304 | 0 | 0 | 0 | 0 | 1366 | 444 | 0 | 781 | 136 |
| Number | 7 | 4 | 14 | | | | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | | | | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | | | | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | | | | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1682 | 0 | 1748 | | | | 0 | 1782 | 1748 | 0 | 1731 | 1651 |
| Adj Flow Rate, veh/h | 258 | 0 | 219 | | | | 0 | 1501 | 0 | 0 | 858 | 0 |
| Adj No. of Lanes | 1 | 0 | 1 | | | | 0 | 2 | 1 | 0 | 2 | 1 |
| Peak Hour Factor | 0.91 | 0.91 | 0.91 | | | | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 |
| Percent Heavy Veh, % | 7 | 0 | 3 | | | | 0 | 1 | 3 | 0 | 4 | 9 |
| Cap, veh/h | 307 | 0 | 303 | | | | 0 | 2172 | 905 | 0 | 2109 | 855 |
| Arrive On Green | 0.20 | 0.00 | 0.20 | | | | 0.00 | 0.61 | 0.00 | 0.00 | 1.00 | 0.00 |
| Sat Flow, veh/h | 1506 | 0 | 1485 | | | | 0 | 3564 | 1485 | 0 | 3462 | 1404 |
| Grp Volume(v), veh/h | 258 | 0 | 219 | | | | 0 | 1501 | 0 | 0 | 858 | 0 |
| Grp Sat Flow(s),veh/h/ln | 1506 | 0 | 1485 | | | | 0 | 1782 | 1485 | 0 | 1731 | 1404 |
| Q Serve(g_s), s | 9.9 | 0.0 | 8.3 | | | | 0.0 | 17.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| Cycle Q Clear(g_c), s | 9.9 | 0.0 | 8.3 | | | | 0.0 | 17.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| Prop In Lane | 1.00 | | 1.00 | | | | 0.00 | | 1.00 | 0.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 307 | 0 | 303 | | | | 0 | 2172 | 905 | 0 | 2109 | 855 |
| V/C Ratio(X) | 0.84 | 0.00 | 0.72 | | | | 0.00 | 0.69 | 0.00 | 0.00 | 0.41 | 0.00 |
| Avail Cap(c_a), veh/h | 407 | 0 | 401 | | | | 0 | 2172 | 905 | 0 | 2109 | 855 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | | | | 1.00 | 1.00 | 1.00 | 1.00 | 2.00 | 2.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | | | | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 |
| Uniform Delay (d), s/veh | 22.9 | 0.0 | 22.3 | | | | 0.0 | 7.9 | 0.0 | 0.0 | 0.0 | 0.0 |
| Incr Delay (d2), s/veh | 8.9 | 0.0 | 2.5 | | | | 0.0 | 1.8 | 0.0 | 0.0 | 0.6 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 4.8 | 0.0 | 3.6 | | | | 0.0 | 8.7 | 0.0 | 0.0 | 0.2 | 0.0 |
| LnGrp Delay(d),s/veh | 31.9 | 0.0 | 24.8 | | | | 0.0 | 9.7 | 0.0 | 0.0 | 0.6 | 0.0 |
| LnGrp LOS | С | | С | | | | | Α | | | A | |
| Approach Vol, veh/h | | 477 | | | | | | 1501 | | | 858 | |
| Approach Delay, s/veh | | 28.6 | | | | | | 9.7 | | | 0.6 | |
| Approach LOS | | С | | | | | | А | | | А | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | | 2 | | 4 | | 6 | | | | | | |
| Phs Duration (G+Y+Rc), s | | 42.0 | | 18.0 | | 42.0 | | | | | | |
| Change Period (Y+Rc), s | | 5.4 | | 5.8 | | 5.4 | | | | | | |
| Max Green Setting (Gmax), s | | 32.6 | | 16.2 | | 32.6 | | | | | | |
| Max Q Clear Time (g_c+l1), s | | 19.1 | | 11.9 | | 2.0 | | | | | | |
| Green Ext Time (p_c), s | | 6.3 | | 0.4 | | 4.0 | | | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 10.1 | | | | | | | | | |
| HCM 2010 LOS | | | В | | | | | | | | | |

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|--|----------|------|------|------|------|-------------|
| | - | * | • | - | 7 | |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | ^ | 7 | Ŋ | ተተተ | ሻ | 7 |
| Traffic Volume (veh/h) | 526 | 141 | 208 | 1066 | 105 | 118 |
| Future Volume (veh/h) | 526 | 141 | 208 | 1066 | 105 | 118 |
| Number | 2 | 12 | 1 | 6 | 3 | 18 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | | 0.97 | 1.00 | | 1.00 | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1765 | 1765 | 1765 | 1765 | 1765 | 1765 |
| Adj Flow Rate, veh/h | 578 | 140 | 229 | 1171 | 115 | 86 |
| Adj No. of Lanes | 2 | 1 | 1 | 3 | 1 | 1 |
| Peak Hour Factor | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 1737 | 716 | 267 | 3819 | 221 | 210 |
| Arrive On Green | 0.49 | 0.49 | 0.17 | 0.72 | 0.14 | 0.14 |
| Sat Flow, veh/h | 3529 | 1454 | 1580 | 5294 | 1580 | 1500 |
| Grp Volume(v), veh/h | 578 | 140 | 229 | 1171 | 115 | 86 |
| Grp Sat Flow(s), veh/h/ln | 1765 | 1454 | 1580 | 1765 | 1580 | 1500 |
| Q Serve(g_s), s | 7.0 | 3.8 | 9.9 | 5.5 | 4.7 | 3.7 |
| Cycle Q Clear(g_c), s | 7.0 | 3.8 | 9.9 | 5.5 | 4.7 | 3.7 |
| Prop In Lane | 7.0 | 1.00 | 1.00 | J.J | 1.00 | 1.00 |
| Lane Grp Cap(c), veh/h | 1737 | 716 | 267 | 3819 | 221 | 210 |
| V/C Ratio(X) | 0.33 | 0.20 | 0.86 | 0.31 | 0.52 | 0.41 |
| | 1737 | | 357 | 3819 | 348 | 330 |
| Avail Cap(c_a), veh/h HCM Platoon Ratio | | 716 | | | 1.00 | 1.00 |
| | 1.00 | 1.00 | 1.00 | 1.00 | | |
| Upstream Filter(I) | 1.00 | 1.00 | 0.52 | 0.52 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 10.8 | 10.0 | 28.3 | 3.5 | 27.9 | 27.5 |
| Incr Delay (d2), s/veh | 0.5 | 0.6 | 6.5 | 0.1 | 0.7 | 0.5 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 3.5 | 1.6 | 4.7 | 2.6 | 2.1 | 1.5 |
| LnGrp Delay(d),s/veh | 11.3 | 10.6 | 34.7 | 3.6 | 28.6 | 27.9 |
| LnGrp LOS | В | В | С | A | С | С |
| Approach Vol, veh/h | 718 | | | 1400 | 201 | |
| Approach Delay, s/veh | 11.2 | | | 8.7 | 28.3 | |
| Approach LOS | В | | | Α | С | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 |
| Assigned Phs | 1 | 2 | J | 4 | J | 6 |
| | | | | | | |
| Phs Duration (G+Y+Rc), s | 16.0 | 39.6 | | | | 55.6 5.1 |
| Change Period (Y+Rc), s | * 4.2 | 5.1 | | | | 5.1 |
| Max Green Setting (Gmax), s | * 16 | 24.9 | | | | 44.9 |
| Max Q Clear Time (g_c+l1), s | 11.9 | 9.0 | | | | 7.5 |
| Green Ext Time (p_c), s | 0.1 | 2.5 | | | | 6.5 |
| Intersection Summary | | | | | | |
| HCM 2010 Ctrl Delay | | | 11.2 | | | |
| HCM 2010 LOS | | | В | | | |
| | | | | | | |
| Notes | | | | | | |

| Intersection | | | | | | |
|------------------------|--------|----------|--------|----------|--------|------|
| Int Delay, s/veh | 1.9 | | | | | |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | ĵ. | | | 4 | ¥ | |
| Traffic Vol., veh/h | 172 | 63 | 0 | 42 | 60 | 0 |
| Future Vol, veh/h | 172 | 63 | 0 | 42 | 60 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | | | - - | None |
| Storage Length | _ | - | _ | - | 0 | - |
| Veh in Median Storage, | | _ | _ | 0 | 0 | _ |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mymt Flow | 187 | 68 | 0 | 46 | 65 | 0 |
| IVIVIIIL I IUW | 107 | 00 | U | 40 | 03 | U |
| | | | | | | |
| Major/Minor M | lajor1 | <u> </u> | Major2 | <u> </u> | Minor1 | |
| Conflicting Flow All | 0 | 0 | 255 | 0 | 267 | 221 |
| Stage 1 | - | - | - | - | 221 | - |
| Stage 2 | - | - | - | - | 46 | - |
| Critical Hdwy | - | - | 4.12 | - | 6.42 | 6.22 |
| Critical Hdwy Stg 1 | - | _ | _ | - | 5.42 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 | - |
| Follow-up Hdwy | _ | | 2.218 | | 3.518 | |
| Pot Cap-1 Maneuver | - | _ | 1310 | _ | 722 | 819 |
| Stage 1 | _ | _ | - | _ | 816 | - |
| Stage 2 | _ | | _ | _ | 976 | _ |
| Platoon blocked, % | _ | | _ | - | 710 | _ |
| Mov Cap-1 Maneuver | - | - | 1310 | - | 722 | 819 |
| Mov Cap-1 Maneuver | - | - | 1310 | - | 722 | 019 |
| | | - | - | | 816 | |
| Stage 1 | - | - | - | - | | - |
| Stage 2 | - | - | - | - | 976 | - |
| | | | | | | |
| Approach | EB | | WB | | NB | |
| HCM Control Delay, s | 0 | | 0 | | 10.5 | |
| HCM LOS | | | | | В | |
| | | | | | | |
| | | | | | | |
| Minor Lane/Major Mvmt | 1 | VBLn1 | EBT | EBR | WBL | WBT |
| Capacity (veh/h) | | 722 | - | - | 1310 | - |
| HCM Lane V/C Ratio | | 0.09 | - | - | - | - |
| HCM Control Delay (s) | | 10.5 | - | - | 0 | - |
| HCM Lane LOS | | В | - | - | Α | - |
| HCM 95th %tile Q(veh) | | 0.3 | - | - | 0 | - |
| | | | | | | |

| Intersection | | | | | | |
|-----------------------------------|--------|----------|--------|------|--------|-------|
| Int Delay, s/veh | 1.4 | | | | | |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | \$ | LDIN | .,,,,, | 4 | ¥ | HOIL |
| Traffic Vol, veh/h | 137 | 35 | 0 | 11 | 31 | 0 |
| Future Vol, veh/h | 137 | 35 | 0 | 11 | 31 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | _ | - | _ | - | 0 | - |
| Veh in Median Storage | e, # 0 | - | - | 0 | 0 | _ |
| Grade, % | 0 | _ | _ | 0 | 0 | _ |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 149 | 38 | 0 | 12 | 34 | 0 |
| IVIVIIIL I IOW | 147 | 30 | U | 12 | 34 | U |
| | | | | | | |
| | Major1 | 1 | Major2 | N | Minor1 | |
| Conflicting Flow All | 0 | 0 | 187 | 0 | 180 | 168 |
| Stage 1 | - | - | - | - | 168 | - |
| Stage 2 | - | - | - | - | 12 | - |
| Critical Hdwy | - | - | 4.12 | - | 6.42 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 | - |
| Follow-up Hdwy | - | - | 2.218 | - | 3.518 | 3.318 |
| Pot Cap-1 Maneuver | - | - | 1387 | - | 810 | 876 |
| Stage 1 | - | - | - | - | 862 | - |
| Stage 2 | - | - | - | - | 1011 | - |
| Platoon blocked, % | _ | - | | _ | | |
| Mov Cap-1 Maneuver | _ | - | 1387 | - | 810 | 876 |
| Mov Cap-2 Maneuver | - | _ | - | _ | 810 | - |
| Stage 1 | _ | _ | _ | _ | 862 | _ |
| Stage 2 | _ | _ | _ | _ | 1011 | _ |
| Stage 2 | | | | | 1011 | |
| | | | | | | |
| Approach | EB | | WB | | NB | |
| HCM Control Delay, s | 0 | | 0 | | 9.6 | |
| HCM LOS | | | | | Α | |
| | | | | | | |
| Minor Lane/Major Mvn | nt N | NBLn1 | EBT | EBR | WBL | WBT |
| Capacity (veh/h) | 1 | 810 | | | 1387 | |
| HCM Lane V/C Ratio | | | - | - | 130/ | - |
| | | 0.042 | - | - | - | - |
| HCM Lang LOS | | 9.6 | - | - | 0 | - |
| HCM Lane LOS HCM 95th %tile Q(veh | 1 | A 0.1 | - | - | A 0 | - |
| | | U. | - | - | () | - |

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|------------------------------|-------|----------|------|----------|----------|------|------|----------|------|----------|---------|------|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | ሻ | ^ | 7 | ሻሻ | ħβ | | | 4 | 7 | ሻ | ₽ | |
| Traffic Volume (veh/h) | 25 | 601 | 18 | 170 | 1204 | 37 | 11 | 6 | 109 | 63 | 15 | 59 |
| Future Volume (veh/h) | 25 | 601 | 18 | 170 | 1204 | 37 | 11 | 6 | 109 | 63 | 15 | 59 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 3 | 8 | 18 | 7 | 4 | 14 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.98 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1765 | 1765 | 1765 | 1765 | 1765 | 1800 | 1800 | 1765 | 1765 | 1765 | 1765 | 1800 |
| Adj Flow Rate, veh/h | 26 | 633 | 16 | 179 | 1267 | 36 | 12 | 6 | 70 | 66 | 16 | 41 |
| Adj No. of Lanes | 1 | 2 | 1 | 2 | 2 | 0 | 0 | 1 | 1 | 1 | 1 | 0 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 43 | 1344 | 562 | 248 | 1490 | 42 | 403 | 186 | 544 | 509 | 159 | 407 |
| Arrive On Green | 0.03 | 0.38 | 0.38 | 0.08 | 0.44 | 0.44 | 0.36 | 0.36 | 0.36 | 0.36 | 0.36 | 0.36 |
| Sat Flow, veh/h | 1580 | 3529 | 1476 | 2992 | 3415 | 97 | 905 | 513 | 1500 | 1239 | 438 | 1124 |
| Grp Volume(v), veh/h | 26 | 633 | 16 | 179 | 654 | 649 | 18 | 0 | 70 | 66 | 0 | 57 |
| Grp Sat Flow(s),veh/h/ln | 1580 | 1765 | 1476 | 1496 | 1765 | 1748 | 1418 | 0 | 1500 | 1239 | 0 | 1562 |
| Q Serve(g_s), s | 1.3 | 10.8 | 0.5 | 4.7 | 26.6 | 26.6 | 0.0 | 0.0 | 2.5 | 3.0 | 0.0 | 1.9 |
| Cycle Q Clear(g_c), s | 1.3 | 10.8 | 0.5 | 4.7 | 26.6 | 26.6 | 1.9 | 0.0 | 2.5 | 4.9 | 0.0 | 1.9 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.06 | 0.67 | | 1.00 | 1.00 | | 0.72 |
| Lane Grp Cap(c), veh/h | 43 | 1344 | 562 | 248 | 770 | 763 | 589 | 0 | 544 | 509 | 0 | 566 |
| V/C Ratio(X) | 0.60 | 0.47 | 0.03 | 0.72 | 0.85 | 0.85 | 0.03 | 0.00 | 0.13 | 0.13 | 0.00 | 0.10 |
| Avail Cap(c_a), veh/h | 101 | 1344 | 562 | 366 | 770 | 763 | 589 | 0 | 544 | 509 | 0 | 566 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 0.95 | 0.95 | 0.95 | 0.89 | 0.89 | 0.89 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 38.5 | 18.7 | 15.5 | 35.8 | 20.2 | 20.2 | 16.4 | 0.0 | 17.1 | 18.5 | 0.0 | 16.9 |
| Incr Delay (d2), s/veh | 4.6 | 1.1 | 0.1 | 1.3 | 10.2 | 10.3 | 0.1 | 0.0 | 0.5 | 0.5 | 0.0 | 0.4 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.6 | 5.5 | 0.2 | 2.0 | 15.1 | 15.0 | 0.3 | 0.0 | 1.1 | 1.1 | 0.0 | 0.9 |
| LnGrp Delay(d),s/veh | 43.1 | 19.8 | 15.6 | 37.1 | 30.4 | 30.5 | 16.5 | 0.0 | 17.5 | 19.0 | 0.0 | 17.2 |
| LnGrp LOS | D | В | В | D | С | С | В | | В | В | | В |
| Approach Vol, veh/h | | 675 | | | 1482 | | | 88 | | | 123 | |
| Approach Delay, s/veh | | 20.6 | | | 31.3 | | | 17.3 | | | 18.2 | |
| Approach LOS | | С | | | С | | | В | | | В | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 10.8 | 35.6 | | 33.6 | 6.4 | 40.0 | | 33.6 | | | | |
| Change Period (Y+Rc), s | * 4.2 | 5.1 | | 4.6 | * 4.2 | 5.1 | | 4.6 | | | | |
| Max Green Setting (Gmax), s | * 9.8 | 27.3 | | 29.0 | * 5.1 | 32.0 | | 29.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 6.7 | 12.8 | | 6.9 | 3.3 | 28.6 | | 4.5 | | | | |
| Green Ext Time (p_c), s | 0.1 | 2.5 | | 0.3 | 0.0 | 1.9 | | 0.2 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 27.0 | | | | | | | | | |
| HCM 2010 LOS | | | С | | | | | | | | | |
| Notes | | | | | | | | | | | | |

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|------------------------------|-------|----------|------|------|----------|------|-----|-----|-----|----------|----------|------|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | ^ | 7 | ሻሻ | ^ | | | | | 7 | 4 | 7 |
| Traffic Volume (veh/h) | 0 | 606 | 167 | 423 | 1280 | 0 | 0 | 0 | 0 | 105 | 2 | 132 |
| Future Volume (veh/h) | 0 | 606 | 167 | 423 | 1280 | 0 | 0 | 0 | 0 | 105 | 2 | 132 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | | | | 7 | 4 | 14 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | | | | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.98 | 1.00 | | 1.00 | | | | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 0 | 1682 | 1667 | 1698 | 1714 | 0 | | | | 1682 | 1719 | 1731 |
| Adj Flow Rate, veh/h | 0 | 618 | 120 | 432 | 1306 | 0 | | | | 136 | 0 | 61 |
| Adj No. of Lanes | 0 | 2 | 1 | 2 | 2 | 0 | | | | 2 | 0 | 1 |
| Peak Hour Factor | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | | | | 0.98 | 0.98 | 0.98 |
| Percent Heavy Veh, % | 0 | 7 | 8 | 6 | 5 | 0 | | | | 7 | 0 | 4 |
| Cap, veh/h | 0 | 1883 | 780 | 506 | 2681 | 0 | | | | 353 | 0 | 162 |
| Arrive On Green | 0.00 | 0.56 | 0.56 | 0.18 | 0.78 | 0.00 | | | | 0.11 | 0.00 | 0.11 |
| Sat Flow, veh/h | 0 | 3364 | 1394 | 2879 | 3429 | 0 | | | | 3204 | 0 | 1471 |
| Grp Volume(v), veh/h | 0 | 618 | 120 | 432 | 1306 | 0 | | | | 136 | 0 | 61 |
| Grp Sat Flow(s),veh/h/ln | 0 | 1682 | 1394 | 1439 | 1714 | 0 | | | | 1602 | 0 | 1471 |
| Q Serve(g_s), s | 0.0 | 8.9 | 3.7 | 13.1 | 12.1 | 0.0 | | | | 3.5 | 0.0 | 3.5 |
| Cycle Q Clear(g_c), s | 0.0 | 8.9 | 3.7 | 13.1 | 12.1 | 0.0 | | | | 3.5 | 0.0 | 3.5 |
| Prop In Lane | 0.00 | | 1.00 | 1.00 | | 0.00 | | | | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 0 | 1883 | 780 | 506 | 2681 | 0 | | | | 353 | 0 | 162 |
| V/C Ratio(X) | 0.00 | 0.33 | 0.15 | 0.85 | 0.49 | 0.00 | | | | 0.38 | 0.00 | 0.38 |
| Avail Cap(c_a), veh/h | 0 | 1883 | 780 | 889 | 2681 | 0 | | | | 548 | 0 | 252 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 0.00 | 0.91 | 0.91 | 0.39 | 0.39 | 0.00 | | | | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 0.0 | 10.7 | 9.6 | 36.0 | 3.5 | 0.0 | | | | 37.2 | 0.0 | 37.2 |
| Incr Delay (d2), s/veh | 0.0 | 0.4 | 0.4 | 0.7 | 0.3 | 0.0 | | | | 0.3 | 0.0 | 0.5 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.0 | 4.2 | 1.5 | 5.3 | 5.7 | 0.0 | | | | 1.6 | 0.0 | 1.4 |
| LnGrp Delay(d),s/veh | 0.0 | 11.1 | 9.9 | 36.6 | 3.7 | 0.0 | | | | 37.5 | 0.0 | 37.7 |
| LnGrp LOS | | В | A | D | A | | | | | D | 107 | D |
| Approach Vol, veh/h | | 738 | | | 1738 | | | | | | 197 | |
| Approach Delay, s/veh | | 10.9 | | | 11.9 | | | | | | 37.5 | |
| Approach LOS | | В | | | В | | | | | | D | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | | 6 | | | | | | |
| Phs Duration (G+Y+Rc), s | 20.0 | 55.5 | | 14.5 | | 75.5 | | | | | | |
| Change Period (Y+Rc), s | * 4.2 | 5.1 | | 4.6 | | 5.1 | | | | | | |
| Max Green Setting (Gmax), s | * 28 | 32.9 | | 15.4 | | 64.9 | | | | | | |
| Max Q Clear Time (g_c+l1), s | 15.1 | 10.9 | | 5.5 | | 14.1 | | | | | | |
| Green Ext Time (p_c), s | 0.7 | 2.9 | | 0.2 | | 8.1 | | | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 13.5 | | | | | | | | | |
| HCM 2010 LOS | | | В | | | | | | | | | |
| Notes | | | | | | | | | | | | |

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|------------------------------|------|----------|------|------|----------|------|------|----------|----------|----------|-----|-----|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | 1,1 | ^ | | | ^ | 7 | 7 | ↔ | 7 | | | |
| Traffic Volume (veh/h) | 137 | 574 | 0 | 0 | 1200 | 295 | 503 | 70 | 968 | 0 | 0 | 0 |
| Future Volume (veh/h) | 137 | 574 | 0 | 0 | 1200 | 295 | 503 | 70 | 968 | 0 | 0 | 0 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 3 | 8 | 18 | | | |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | | | |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | |
| Adj Sat Flow, veh/h/ln | 1782 | 1682 | 0 | 0 | 1731 | 1698 | 1714 | 1736 | 1748 | | | |
| Adj Flow Rate, veh/h | 146 | 611 | 0 | 0 | 1277 | 152 | 381 | 0 | 972 | | | |
| Adj No. of Lanes | 2 | 2 | 0 | 0 | 2 | 1 | 1 | 0 | 2 | | | |
| Peak Hour Factor | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | | | |
| Percent Heavy Veh, % | 1 | 7 | 0 | 0 | 4 | 6 | 5 | 7 | 3 | | | |
| Cap, veh/h | 171 | 1830 | 0 | 0 | 1525 | 636 | 569 | 0 | 1035 | | | |
| Arrive On Green | 0.11 | 1.00 | 0.00 | 0.00 | 0.44 | 0.44 | 0.35 | 0.00 | 0.35 | | | |
| Sat Flow, veh/h | 3021 | 3364 | 0 | 0 | 3462 | 1443 | 1633 | 0 | 2971 | | | |
| Grp Volume(v), veh/h | 146 | 611 | 0 | 0 | 1277 | 152 | 381 | 0 | 972 | | | |
| Grp Sat Flow(s),veh/h/ln | 1511 | 1682 | 0 | 0 | 1731 | 1443 | 1633 | 0 | 1485 | | | |
| Q Serve(g_s), s | 4.3 | 0.0 | 0.0 | 0.0 | 29.4 | 5.9 | 17.9 | 0.0 | 28.5 | | | |
| Cycle Q Clear(g_c), s | 4.3 | 0.0 | 0.0 | 0.0 | 29.4 | 5.9 | 17.9 | 0.0 | 28.5 | | | |
| Prop In Lane | 1.00 | | 0.00 | 0.00 | | 1.00 | 1.00 | | 1.00 | | | |
| Lane Grp Cap(c), veh/h | 171 | 1830 | 0 | 0 | 1525 | 636 | 569 | 0 | 1035 | | | |
| V/C Ratio(X) | 0.85 | 0.33 | 0.00 | 0.00 | 0.84 | 0.24 | 0.67 | 0.00 | 0.94 | | | |
| Avail Cap(c_a), veh/h | 171 | 1830 | 0 | 0 | 1525 | 636 | 588 | 0 | 1070 | | | |
| HCM Platoon Ratio | 2.00 | 2.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | |
| Upstream Filter(I) | 0.95 | 0.95 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | | | |
| Uniform Delay (d), s/veh | 39.5 | 0.0 | 0.0 | 0.0 | 22.3 | 15.7 | 24.9 | 0.0 | 28.4 | | | |
| Incr Delay (d2), s/veh | 29.2 | 0.5 | 0.0 | 0.0 | 5.6 | 0.9 | 2.2 | 0.0 | 14.6 | | | |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | |
| %ile BackOfQ(50%),veh/ln | 2.5 | 0.1 | 0.0 | 0.0 | 15.2 | 2.5 | 8.4 | 0.0 | 13.7 | | | |
| LnGrp Delay(d),s/veh | 68.7 | 0.5 | 0.0 | 0.0 | 27.9 | 16.6 | 27.2 | 0.0 | 43.0 | | | |
| LnGrp LOS | E | Α | | | С | В | С | | D | | | |
| Approach Vol, veh/h | | 757 | | | 1429 | | | 1353 | | | | |
| Approach Delay, s/veh | | 13.6 | | | 26.7 | | | 38.6 | | | | |
| Approach LOS | | В | | | С | | | D | | | | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | | 2 | | | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | | 54.1 | | | 9.3 | 44.8 | | 35.9 | | | | |
| Change Period (Y+Rc), s | | 5.1 | | | * 4.2 | 5.1 | | 4.6 | | | | |
| Max Green Setting (Gmax), s | | 47.9 | | | * 5.1 | 38.6 | | 32.4 | | | | |
| Max Q Clear Time (g_c+I1), s | | 2.0 | | | 6.3 | 31.4 | | 30.5 | | | | |
| Green Ext Time (p_c), s | | 2.9 | | | 0.0 | 3.8 | | 0.8 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 28.5 | | | | | | | | | |
| HCM 2010 LOS | | | C | | | | | | | | | |
| Notes | | | | | | | | | | | | |

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|-------------------------------------|-------|------|-----------|------|------|----------|--|
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| Movement | WBL | WBR | NBT | NBR | SBL | SBT | |
| Lane Configurations | ሻሻ | 77 | ^ | 7 | ሻ | ^ | |
| Traffic Volume (veh/h) | 277 | 231 | 440 | 400 | 338 | 702 | |
| Future Volume (veh/h) | 277 | 231 | 440 | 400 | 338 | 702 | |
| Number | 3 | 18 | 2 | 12 | 1 | 6 | |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | |
| Ped-Bike Adj(A_pbT) | 1.00 | 1.00 | | 1.00 | 1.00 | | |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| Adj Sat Flow, veh/h/ln | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | |
| Adj Flow Rate, veh/h | 286 | 102 | 454 | 288 | 348 | 724 | |
| Adj No. of Lanes | 2 | 2 | 2 | 1 | 1 | 2 | |
| Peak Hour Factor | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | |
| Cap, veh/h | 367 | 368 | 1725 | 733 | 377 | 2735 | |
| Arrive On Green | 0.12 | 0.12 | 0.48 | 0.48 | 0.23 | 0.76 | |
| Sat Flow, veh/h | 3051 | 3060 | 3600 | 1530 | 1611 | 3600 | |
| Grp Volume(v), veh/h | 286 | 102 | 454 | 288 | 348 | 724 | |
| Grp Sat Flow(s), veh/h/ln | 1526 | 1530 | 1800 | 1530 | 1611 | 1800 | |
| Q Serve(g_s), s | 8.2 | 2.7 | 6.8 | 10.9 | 19.0 | 5.4 | |
| Cycle Q Clear(g_c), s | 8.2 | 2.7 | 6.8 | 10.9 | 19.0 | 5.4 | |
| Prop In Lane | 1.00 | 1.00 | | 1.00 | 1.00 | | |
| Lane Grp Cap(c), veh/h | 367 | 368 | 1725 | 733 | 377 | 2735 | |
| V/C Ratio(X) | 0.78 | 0.28 | 0.26 | 0.39 | 0.92 | 0.26 | |
| Avail Cap(c_a), veh/h | 814 | 816 | 1725 | 733 | 390 | 2735 | |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| Uniform Delay (d), s/veh | 38.4 | 36.0 | 14.0 | 15.0 | 33.7 | 3.3 | |
| Incr Delay (d2), s/veh | 1.4 | 0.2 | 0.4 | 1.6 | 26.2 | 0.2 | |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| %ile BackOfQ(50%),veh/ln | 3.5 | 1.2 | 3.4 | 4.9 | 11.2 | 2.7 | |
| LnGrp Delay(d),s/veh | 39.8 | 36.2 | 14.3 | 16.6 | 59.9 | 3.5 | |
| LnGrp LOS | D | D | В | В | E | Α | |
| Approach Vol, veh/h | 388 | | 742 | | | 1072 | |
| Approach Delay, s/veh | 38.8 | | 15.2 | | | 21.8 | |
| Approach LOS | D | | В | | | С | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | |
| Assigned Phs | 1 | 2 | | | | 6 | |
| Phs Duration (G+Y+Rc), s | 25.2 | 48.5 | | | | 73.8 | |
| Change Period (Y+Rc), s | * 4.2 | 5.4 | | | | 5.4 | |
| Max Green Setting (Gmax), s | * 22 | 29.2 | | | | 55.2 | |
| Max Q Clear Time (g_c+l1), s | 21.0 | 12.9 | | | | 7.4 | |
| Green Ext Time (p_c), s | 0.1 | 2.1 | | | | 3.3 | |
| Intersection Summary | J. 1 | ۷.۱ | | | | 3.0 | |
| | | | 22.6 | | | | |
| HCM 2010 Ctrl Delay HCM 2010 LOS | | | 22.6 C | | | | |
| | | | | | | | |
| Notes | | | | | | | |

| Movement EBL EBT EBR WBL WBT WBR NBL NBT NBR SBL SBR SBR Lane Configurations | | ۶ | → | • | • | ← | • | 1 | † | / | > | Ţ | ✓ |
|--|-------------------------|-----|----------|-----|------|----------|------|------|----------|----------|-------------|------|------|
| Traffic Volume (veh/h) 0 0 0 233 0 207 0 633 233 0 752 226 Number 0 0 0 233 0 207 0 633 233 0 752 226 Number 0 0 0 0 233 0 207 0 633 233 0 752 226 Number 0 3 8 18 5 2 12 1 1 6 16 Initial COb), veh 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Traffic Volume (veh/h) 0 0 0 233 0 207 0 633 233 0 752 226 Number 0 0 0 233 0 207 0 633 233 0 752 226 Number 0 0 0 0 233 0 207 0 633 233 0 752 226 Number 0 3 8 18 5 2 12 1 1 6 16 Initial COb), veh 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | Lane Configurations | | | | 7 | | 7 | | ^ | 7 | | ħβ | |
| Number | Traffic Volume (veh/h) | 0 | 0 | 0 | 233 | 0 | 207 | 0 | | 233 | 0 | | 226 |
| Initial O (Ob), veh | Future Volume (veh/h) | 0 | 0 | 0 | 233 | 0 | 207 | 0 | 633 | 233 | 0 | 752 | 226 |
| Ped-Bike Adj A_pbT | Number | | | | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Parking Bus, Adj | Initial Q (Qb), veh | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Adj Sale Flow, veh/h/In 1748 0 1782 0 1731 1651 0 1748 1800 Adj Flow Rate, veh/h 245 0 126 0 666 0 0 792 238 Adj No. of Lanes 1 0 1 0 0 2 1 0 2 0 0 2 0 2 0 2 0 2 0 2 0 2 0 2 0 2 0 2 0 0 2 0 0 2 0 | Ped-Bike Adj(A_pbT) | | | | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Adj Sale Flow, veh/h/In 1748 0 1782 0 1731 1651 0 1748 1800 Adj Flow Rate, veh/h 245 0 126 0 666 0 0 792 238 Adj No. of Lanes 1 0 1 0 0 2 1 0 2 0 0 2 0 2 0 2 0 2 0 2 0 2 0 2 0 2 0 2 0 0 2 0 0 2 0 | Parking Bus, Adj | | | | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj No. of Lanes 1 0 1 0 2 1 0 2 0 2 0 0 2 0 0 2 0 | | | | | 1748 | 0 | 1782 | 0 | 1731 | 1651 | 0 | 1748 | 1800 |
| Peak Hour Factor 0.95 0.96 0.0 1.00 0.00 | Adj Flow Rate, veh/h | | | | 245 | 0 | 126 | 0 | 666 | 0 | 0 | 792 | 238 |
| Percent Heavy Veh, % 297 0 288 0 2158 875 0 1610 484 477 487 | Adj No. of Lanes | | | | 1 | 0 | 1 | 0 | 2 | 1 | 0 | 2 | 0 |
| Cap, veh/h 297 0 288 0 2158 875 0 1610 484 Arrive On Green 0.19 0.00 0.19 0.00 0.10 0.00 0.00 0.00 0.62 0.62 Sat Flow, veh/h 1564 0 1515 0 3462 1404 0 2582 776 Gry Volume(V), veh/h 245 0 1265 0 1566 0 0 536 494 Gry Sat Flow(s), veh/h/In 1564 0 1515 0 1731 1404 0 1748 1611 O Serve(g. s), s 9.0 0.0 4.4 0.0 0.0 0.0 1748 1611 O Serve(g. s), s 9.0 0.0 4.4 0.0 0.0 0.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 | Peak Hour Factor | | | | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Arrive On Green | Percent Heavy Veh, % | | | | 3 | 0 | 1 | 0 | 4 | 9 | 0 | 3 | 3 |
| Sat Flow, veh/h | | | | | 297 | 0 | 288 | 0 | 2158 | 875 | 0 | 1610 | 484 |
| Grp Volume(v), veh/h 245 0 126 0 666 0 0 536 494 Grp Sat Flow(s), veh/h/ln 1564 0 1515 0 1731 1404 0 1748 1611 Q Serve(g_s), s 9.0 0.0 4.4 0.0 0.0 0.0 0.0 10.0 10.0 Cycle Q Clear(g_c), s 9.0 0.0 4.4 0.0 0.0 0.0 0.0 10.0 10.0 Prop In Lane 1.00 1.00 1.00 0.00 1.00 0.00 0.0 1.0 1.0 1.0 <t< td=""><td>- ·</td><td></td><td></td><td></td><td>0.19</td><td>0.00</td><td>0.19</td><td>0.00</td><td>1.00</td><td>0.00</td><td>0.00</td><td>0.62</td><td>0.62</td></t<> | - · | | | | 0.19 | 0.00 | 0.19 | 0.00 | 1.00 | 0.00 | 0.00 | 0.62 | 0.62 |
| Grp Volume(v), veh/h 245 0 126 0 666 0 0 536 494 Grp Sat Flow(s), veh/h/In 1564 0 1515 0 1731 1404 0 1748 1611 O Serve(g_s), s 9.0 0.0 4.4 0.0 0.0 0.0 0.0 10.0 10.0 Cycle Q Clear(g_c), s 9.0 0.0 4.4 0.0 0.0 0.0 0.0 10.0 10.0 Prop In Lane 1.00 1.00 1.00 0.00 1.00 0.00 0.48 Lane Grp Cap(c), veh/h 297 0 288 0 2158 875 0 1089 1004 V/C Ratio(X) 0.82 0.00 0.44 0.00 0.31 0.00 0.0 0.49 4.94 Avail Cap(c_a), veh/h 527 0 510 0 2158 875 0 1089 1004 HCM Platon Ratio 1.00 1.00 1.00 1.00 | Sat Flow, veh/h | | | | 1564 | 0 | 1515 | 0 | | 1404 | 0 | 2582 | |
| Grp Sat Flow(s), veh/h/ln 1564 0 1515 0 1731 1404 0 1748 1611 O Serve(gS), s 9.0 0.0 4.4 0.0 0.0 0.0 10.0 10.0 10.0 Cycle O Clear(gc), s 9.0 0.0 4.4 0.0 0.0 0.0 10.0 10.0 10.0 Prop In Lane 1.00 1.00 0.00 1.00 0.00 0.48 10.0 0.00 0.48 Lane Gr Cap(c), veh/h 297 0 288 0 2158 875 0 1089 1004 V/C Ratio(X) 0.82 0.00 0.44 0.00 0.31 0.00 0.00 0.49 0.49 Avail Cap(c_a), veh/h 527 0 510 0 2158 875 0 1089 1004 HCM Platon Ratio 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 | | | | | 245 | 0 | | 0 | | | 0 | 536 | 494 |
| Q Serve(g_s), s 9.0 0.0 4.4 0.0 0.0 0.0 10.0 10.0 Cycle C Clear(g_c), s 9.0 0.0 4.4 0.0 0.0 0.0 10.0 10.0 Prop In Lane 1.00 1.00 0.00 1.00 0.00 0.0 0.0 0.48 Lane Grp Cap(c), veh/h 297 0 288 0 2158 875 0 1089 1004 V/C Ratio(X) 0.82 0.00 0.44 0.00 0.31 0.00 0.04 0.49 Avail Cap(c_a), veh/h 527 0 510 0 2158 875 0 1089 1004 HCM Platoon Ratio 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 0.00 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 | | | | | | | | | | | | | |
| Cycle O Clear(g_c), s 9.0 0.0 4.4 0.0 0.0 0.0 10.0 10.0 Prop In Lane 1.00 1.00 0.00 1.00 0.00 0.00 0.00 0.00 0.04 Lane Grp Cap(c), veh/h 297 0 288 0 2158 875 0 1089 1004 V/C Ratio(X) 0.82 0.00 0.44 0.00 0.31 0.00 0.09 0.49 Avail Cap(c_a), veh/h 527 0 510 0 2158 875 0 1089 1004 HCM Platoon Ratio 1.00 1.00 1.00 1.00 1.00 1.00 0.00 0.0 0.00 1.00 1.00 Upstream Filter(f) 1.00 1.00 0.0 0.0 0.0 0.0 0.0 0.0 0.0 1.00 1.00 1.00 1.00 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 | | | | | | | | | | | | | |
| Prop In Lane | | | | | | | | | | | | | |
| Lane Grp Cap(c), veh/h 297 0 288 0 2158 875 0 1089 1004 V/C Ratio(X) 0.82 0.00 0.44 0.00 0.31 0.00 0.00 0.49 0.49 Avail Cap(c_a), veh/h 527 0 510 0 2158 875 0 1089 1004 HCM Platoon Ratio 1.00 1.00 1.00 1.00 1.00 1.00 0.00 2.00 2.00 1.00 1.00 Upstream Filter(I) 1.00 0.00 1.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0 | | | | | | 0.0 | | | 0.0 | | | | |
| V/C Ratio(X) 0.82 0.00 0.44 0.00 0.31 0.00 0.04 0.49 Avail Cap(c_a), veh/h 527 0 510 0 2158 875 0 1008 1004 HCM Platoon Ratio 1.00 1.00 1.00 1.00 2.00 2.00 1.00 1.00 1.00 Upstream Filter(I) 1.00 0.00 1.00 0.00 1.00 0.00 0.00 0.00 1.00 1.00 Uniform Delay (d), s/veh 2.23 0.0 21.5 0.0 0.0 0.0 0.0 0.0 1.6 1.7 Initial O Delay (d3), s/veh 2.2 0.0 0.4 0.0 | | | | | | 0 | | | 2158 | | | 1089 | |
| Avail Cap(c_a), veh/h 527 0 510 0 2158 875 0 1089 1004 HCM Platoon Ratio 1.00 1.00 1.00 1.00 2.00 2.00 1.00 1.00 1.00 Upstream Filter(f) 1.00 0.00 0.00 0.00 0.00 0.00 0.00 1.00 Uniform Delay (d), s/veh 23.3 0.0 21.5 0.0 0.0 0.0 0.0 0.0 0.0 1.00 Uniform Delay (d2), s/veh 2.2 0.0 0.4 0.0 0.0 0.0 0.0 0.0 0.0 Incr Delay (d2), s/veh 2.2 0.0 0.4 0.0 0.0 0.0 0.0 0.0 0.0 Initial Q Delay(d3), s/veh 2.2 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 Wile BackOfQ(50%), veh/ln 4.1 0.0 1.9 0.0 0.1 0.0 0.0 0.0 0.0 Unstream Filter(f) 25.5 0.0 21.9 0.0 0.1 0.0 0.0 0.0 0.0 Initial Q Delay(d), s/veh 25.5 0.0 21.9 0.0 0.4 0.0 0.0 0.0 0.0 Initial Q Delay(d), s/veh 24.3 0.4 0.0 0.0 0.0 0.0 Initial Q Delay (d2), s/veh 24.3 0.4 0.0 0.0 0.0 0.0 Initial Q Delay (d2), s/veh 24.3 0.4 0.0 0.0 0.0 0.0 0.0 Initial Q Delay (d2), s/veh 24.3 0.4 0.0 0.0 0.0 0.0 0.0 Initial Q Delay (d2), s/veh 24.3 0.4 0.0 0.0 0.0 0.0 0.0 0.0 Initial Q Delay (d2), s/veh 24.3 0.4 0.0 0.0 0.0 0.0 0.0 0.0 Initial Q Delay (d2), s/veh 24.3 0.4 0.0 0.0 0.0 0.0 0.0 0.0 0.0 Initial Q Delay (d2), s/veh 24.3 0.4 0.0 0.0 0.0 0.0 0.0 0.0 0.0 Initial Q Delay (d2), s/veh 24.3 0.4 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 Initial Q Delay (d2), s/veh 24.3 0.4 0.0 | | | | | | | | | | | | | |
| HCM Platoon Ratio | | | | | | | | | | | | | |
| Upstream Filter(I) 1.00 0.00 1.00 0.00 1.00 0.00 0.00 0.00 1.00 1.00 Uniform Delay (d), s/veh 23.3 0.0 21.5 0.0 0.0 0.0 0.0 6.1 6.1 Incr Delay (d2), s/veh 2.2 0.0 0.4 0.0 0.4 0.0 | | | | | | | | | | | | | |
| Uniform Delay (d), s/veh 23.3 0.0 21.5 0.0 0.0 0.0 0.0 6.1 6.1 Incr Delay (d2), s/veh 2.2 0.0 0.4 0.0 0.4 0.0 | | | | | | | | | | | | | |
| Incr Delay (d2), s/veh | | | | | | | | | | | | | |
| Initial Q Delay(d3),s/veh | | | | | | | | | | | | | |
| %ile BackOfQ(50%), veh/ln 4.1 0.0 1.9 0.0 0.1 0.0 0.0 5.2 4.9 LnGrp Delay(d), s/veh 25.5 0.0 21.9 0.0 0.4 0.0 0.0 7.7 7.9 LnGrp LOS C C C A | | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh 25.5 0.0 21.9 0.0 0.4 0.0 0.0 7.7 7.9 LnGrp LOS C C A | | | | | | | | | | | | | |
| LnGrp LOS C C A A A Approach Vol, veh/h 371 666 1030 Approach Delay, s/veh 24.3 0.4 7.8 Approach LOS C A A Timer 1 2 3 4 5 6 7 8 Assigned Phs 2 6 8 8 8 9 9 9 9 17.2 | | | | | | | | | | | | | |
| Approach Vol, veh/h 371 666 1030 Approach Delay, s/veh 24.3 0.4 7.8 Approach LOS C A A Timer 1 2 3 4 5 6 7 8 Assigned Phs 2 6 8 8 8 8 9 9 9 9 9 17.2 | | | | | | 0.0 | | 0.0 | | 0.0 | 0.0 | | |
| Approach Delay, s/veh 24.3 0.4 7.8 Approach LOS C A A Timer 1 2 3 4 5 6 7 8 Assigned Phs 2 6 8 8 8 Phs Duration (G+Y+Rc), s 42.8 42.8 17.2 Change Period (Y+Rc), s 5.4 5.4 5.8 Max Green Setting (Gmax), s 28.6 28.6 20.2 Max Q Clear Time (g_c+I1), s 2.0 12.0 11.0 Green Ext Time (p_c), s 2.9 3.9 0.4 Intersection Summary HCM 2010 Ctrl Delay 8.4 | | | | | | 371 | | | | | | | - 1 |
| Approach LOS C A A Timer 1 2 3 4 5 6 7 8 Assigned Phs 2 6 8 Phs Duration (G+Y+Rc), s 42.8 Change Period (Y+Rc), s 5.4 Max Green Setting (Gmax), s 28.6 Max Q Clear Time (g_c+I1), s 2.0 Green Ext Time (p_c), s 2.9 Intersection Summary HCM 2010 Ctrl Delay 8.4 | | | | | | | | | | | | | |
| Timer 1 2 3 4 5 6 7 8 Assigned Phs 2 6 8 Phs Duration (G+Y+Rc), s 42.8 17.2 Change Period (Y+Rc), s 5.4 5.8 Max Green Setting (Gmax), s 28.6 28.6 20.2 Max Q Clear Time (g_c+I1), s 2.0 12.0 11.0 Green Ext Time (p_c), s 2.9 3.9 0.4 Intersection Summary HCM 2010 Ctrl Delay 8.4 | | | | | | | | | | | | | |
| Assigned Phs 2 6 8 Phs Duration (G+Y+Rc), s 42.8 17.2 Change Period (Y+Rc), s 5.4 5.8 Max Green Setting (Gmax), s 28.6 28.6 20.2 Max Q Clear Time (g_c+I1), s 2.0 12.0 11.0 Green Ext Time (p_c), s 2.9 3.9 0.4 Intersection Summary HCM 2010 Ctrl Delay 8.4 | | | | | | | | | | | | 71 | |
| Phs Duration (G+Y+Rc), s 42.8 17.2 Change Period (Y+Rc), s 5.4 5.8 Max Green Setting (Gmax), s 28.6 28.6 20.2 Max Q Clear Time (g_c+I1), s 2.0 12.0 11.0 Green Ext Time (p_c), s 2.9 3.9 0.4 Intersection Summary HCM 2010 Ctrl Delay 8.4 | | 1 | | 3 | 4 | 5 | | 7 | | | | | |
| Change Period (Y+Rc), s 5.4 5.8 Max Green Setting (Gmax), s 28.6 28.6 20.2 Max Q Clear Time (g_c+l1), s 2.0 12.0 11.0 Green Ext Time (p_c), s 2.9 3.9 0.4 Intersection Summary HCM 2010 Ctrl Delay 8.4 | | | | | | | | | | | | | |
| Max Green Setting (Gmax), s 28.6 20.2 Max Q Clear Time (g_c+l1), s 2.0 12.0 11.0 Green Ext Time (p_c), s 2.9 3.9 0.4 Intersection Summary HCM 2010 Ctrl Delay 8.4 | | | | | | | | | | | | | |
| Max Q Clear Time (g_c+I1), s 2.0 12.0 11.0 Green Ext Time (p_c), s 2.9 3.9 0.4 Intersection Summary HCM 2010 Ctrl Delay 8.4 | | | | | | | | | | | | | |
| Green Ext Time (p_c), s 2.9 3.9 0.4 Intersection Summary HCM 2010 Ctrl Delay 8.4 | | | | | | | | | | | | | |
| Intersection Summary HCM 2010 Ctrl Delay 8.4 | ·0= , | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay 8.4 | Green Ext Time (p_c), s | | 2.9 | | | | 3.9 | | 0.4 | | | | |
| | Intersection Summary | | | | | | | | | | | | |
| HCM 2010 LOS A | HCM 2010 Ctrl Delay | | | 8.4 | | | | | | | | | |
| | HCM 2010 LOS | | | Α | | | | | | | | | |

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|------------------------------|------|-----------|------|------|----------|------|------|----------|------|----------|----------|------|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | 7 | | 7 | | | | | ^ | 7 | | ^ | 7 |
| Traffic Volume (veh/h) | 359 | 0 | 368 | 0 | 0 | 0 | 0 | 507 | 167 | 0 | 690 | 295 |
| Future Volume (veh/h) | 359 | 0 | 368 | 0 | 0 | 0 | 0 | 507 | 167 | 0 | 690 | 295 |
| Number | 7 | 4 | 14 | | | | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | | | | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | | | | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | | | | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1682 | 0 | 1765 | | | | 0 | 1714 | 1636 | 0 | 1765 | 1731 |
| Adj Flow Rate, veh/h | 374 | 0 | 243 | | | | 0 | 528 | 0 | 0 | 719 | 0 |
| Adj No. of Lanes | 1 | 0 | 1 | | | | 0 | 2 | 1 | 0 | 2 | 1 |
| Peak Hour Factor | 0.96 | 0.96 | 0.96 | | | | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 |
| Percent Heavy Veh, % | 7 | 0 | 2 | | | | 0 | 5 | 10 | 0 | 2 | 4 |
| Cap, veh/h | 426 | 0 | 424 | | | | 0 | 1819 | 738 | 0 | 1872 | 780 |
| Arrive On Green | 0.28 | 0.00 | 0.28 | | | | 0.00 | 0.53 | 0.00 | 0.00 | 1.00 | 0.00 |
| Sat Flow, veh/h | 1506 | 0 | 1500 | | | | 0 | 3429 | 1391 | 0 | 3529 | 1471 |
| Grp Volume(v), veh/h | 374 | 0 | 243 | | | | 0 | 528 | 0 | 0 | 719 | 0 |
| Grp Sat Flow(s),veh/h/ln | 1506 | 0 | 1500 | | | | 0 | 1714 | 1391 | 0 | 1765 | 1471 |
| Q Serve(g_s), s | 14.2 | 0.0 | 8.3 | | | | 0.0 | 5.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| Cycle Q Clear(g_c), s | 14.2 | 0.0 | 8.3 | | | | 0.0 | 5.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| Prop In Lane | 1.00 | | 1.00 | | | | 0.00 | | 1.00 | 0.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 426 | 0 | 424 | | | | 0 | 1819 | 738 | 0 | 1872 | 780 |
| V/C Ratio(X) | 0.88 | 0.00 | 0.57 | | | | 0.00 | 0.29 | 0.00 | 0.00 | 0.38 | 0.00 |
| Avail Cap(c_a), veh/h | 633 | 0 | 630 | | | | 0 | 1819 | 738 | 0 | 1872 | 780 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | | | | 1.00 | 1.00 | 1.00 | 1.00 | 2.00 | 2.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | | | | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 |
| Uniform Delay (d), s/veh | 20.5 | 0.0 | 18.4 | | | | 0.0 | 7.8 | 0.0 | 0.0 | 0.0 | 0.0 |
| Incr Delay (d2), s/veh | 6.7 | 0.0 | 0.5 | | | | 0.0 | 0.4 | 0.0 | 0.0 | 0.6 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 6.7 | 0.0 | 3.5 | | | | 0.0 | 2.5 | 0.0 | 0.0 | 0.2 | 0.0 |
| LnGrp Delay(d),s/veh | 27.2 | 0.0 | 18.9 | | | | 0.0 | 8.2 | 0.0 | 0.0 | 0.6 | 0.0 |
| LnGrp LOS | С | /17 | В | | | | | A | | | A 710 | |
| Approach Vol, veh/h | | 617 | | | | | | 528 | | | 719 | |
| Approach LOS | | 23.9 C | | | | | | 8.2 | | | 0.6 | |
| Approach LOS | | | | | | | | А | | | A | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | | 2 | | 4 | | 6 | | | | | | |
| Phs Duration (G+Y+Rc), s | | 37.2 | | 22.8 | | 37.2 | | | | | | |
| Change Period (Y+Rc), s | | 5.4 | | 5.8 | | 5.4 | | | | | | |
| Max Green Setting (Gmax), s | | 23.6 | | 25.2 | | 23.6 | | | | | | |
| Max Q Clear Time (g_c+l1), s | | 7.1 | | 16.2 | | 2.0 | | | | | | |
| Green Ext Time (p_c), s | | 2.0 | | 0.8 | | 3.0 | | | | | | |
| Intersection Summary | | | 10.5 | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 10.5 | | | | | | | | | |
| HCM 2010 LOS | | | В | | | | | | | | | |

| | | _ | | — | • | | |
|------------------------------|----------|-------|------|----------|------|------|---|
| | → | * | ₹ | _ | ٦, | _ | |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR | |
| Lane Configurations | ^ | 100 | 070 | ^ | 100 | 070 | |
| Traffic Volume (veh/h) | 603 | 103 | 273 | 445 | 192 | 279 | |
| Future Volume (veh/h) | 603 | 103 | 273 | 445 | 192 | 279 | |
| Number | 2 | 12 | 1 | 6 | 3 | 18 | |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | |
| Ped-Bike Adj(A_pbT) | 4.00 | 1.00 | 1.00 | 4.00 | 1.00 | 1.00 | |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| Adj Sat Flow, veh/h/ln | 1765 | 1765 | 1765 | 1765 | 1765 | 1765 | |
| Adj Flow Rate, veh/h | 622 | 90 | 281 | 459 | 198 | 181 | |
| Adj No. of Lanes | 2 | 1 | 1 | 3 | 1 | 1 | |
| Peak Hour Factor | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | |
| Cap, veh/h | 1465 | 619 | 272 | 3557 | 263 | 250 | |
| Arrive On Green | 0.41 | 0.41 | 0.17 | 0.67 | 0.17 | 0.17 | |
| Sat Flow, veh/h | 3529 | 1493 | 1580 | 5294 | 1580 | 1500 | |
| Grp Volume(v), veh/h | 622 | 90 | 281 | 459 | 198 | 181 | |
| Grp Sat Flow(s),veh/h/ln | 1765 | 1493 | 1580 | 1765 | 1580 | 1500 | |
| Q Serve(g_s), s | 7.5 | 2.3 | 10.3 | 1.9 | 7.2 | 6.9 | |
| Cycle Q Clear(g_c), s | 7.5 | 2.3 | 10.3 | 1.9 | 7.2 | 6.9 | |
| Prop In Lane | | 1.00 | 1.00 | | 1.00 | 1.00 | |
| Lane Grp Cap(c), veh/h | 1465 | 619 | 272 | 3557 | 263 | 250 | |
| V/C Ratio(X) | 0.42 | 0.15 | 1.03 | 0.13 | 0.75 | 0.73 | |
| Avail Cap(c_a), veh/h | 1465 | 619 | 272 | 3557 | 405 | 385 | |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| Upstream Filter(I) | 1.00 | 1.00 | 0.81 | 0.81 | 1.00 | 1.00 | |
| Uniform Delay (d), s/veh | 12.5 | 10.9 | 24.8 | 3.5 | 23.8 | 23.7 | |
| Incr Delay (d2), s/veh | 0.9 | 0.5 | 58.2 | 0.1 | 1.7 | 1.5 | |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| %ile BackOfQ(50%),veh/ln | 3.8 | 1.0 | 8.8 | 0.9 | 3.3 | 2.9 | |
| LnGrp Delay(d),s/veh | 13.4 | 11.4 | 83.0 | 3.6 | 25.5 | 25.2 | |
| LnGrp LOS | В | В | F | Α | С | С | |
| Approach Vol, veh/h | 712 | | | 740 | 379 | | _ |
| Approach Delay, s/veh | 13.1 | | | 33.7 | 25.4 | | |
| Approach LOS | В | | | С | С | | |
| • | | 2 | 2 | 4 | | , | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | |
| Assigned Phs | 1 | 2 | | | | 6 | |
| Phs Duration (G+Y+Rc), s | 15.4 | 30.0 | | | | 45.4 | |
| Change Period (Y+Rc), s | 5.1 | * 5.1 | | | | 5.1 | |
| Max Green Setting (Gmax), s | 5.8 | * 25 | | | | 34.9 | |
| Max Q Clear Time (g_c+I1), s | 12.3 | 9.5 | | | | 3.9 | |
| Green Ext Time (p_c), s | 0.0 | 2.6 | | | | 2.1 | |
| Intersection Summary | | | | | | | |
| HCM 2010 Ctrl Delay | | | 24.0 | | | | |
| HCM 2010 LOS | | | C C | | | | |
| | | | - O | | | | |
| Notes | | | | | | | |

| Intersection | | | | | | |
|--------------------------------------|-----------|------------|--------|------------|--------|--------|
| Int Delay, s/veh | 2.2 | | | | | |
| | EBT | EBR | \\/DI | \\/DT | NBL | NDD |
| | | ERK | WBL | WBT | | NBR |
| Lane Configurations | } | 104 | 0 | 4 140 | 70 | 0 |
| Traffic Vol, veh/h Future Vol, veh/h | 66 | 106 106 | 0 | 149 149 | 79 | 0 |
| | 66 | | 0 | | 79 | 0 |
| Conflicting Peds, #/hr | 0 Eroo | 0 | 0 | 0 Free | 0 | O Ctop |
| Sign Control RT Channelized | Free | Free | Free | Free | Stop | Stop |
| | - | None | - | None | - | None |
| Storage Length | - 4 0 | - | - | - | 0 | |
| Veh in Median Storage, a | | - | - | 0 | 0 | - |
| Grade, % | 0 | - 02 | - | 0 | 0 | - 00 |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 72 | 115 | 0 | 162 | 86 | 0 |
| | | | | | | |
| Major/Minor Ma | ajor1 | ľ | Major2 | - 1 | Minor1 | |
| Conflicting Flow All | 0 | 0 | 187 | 0 | 292 | 130 |
| Stage 1 | - | - | - | - | 130 | - |
| Stage 2 | - | - | - | - | 162 | - |
| Critical Hdwy | - | - | 4.12 | - | 6.42 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 | - |
| Critical Hdwy Stg 2 | - | _ | - | - | 5.42 | - |
| Follow-up Hdwy | - | - | 2.218 | - | 3.518 | 3.318 |
| Pot Cap-1 Maneuver | - | _ | 1387 | - | 699 | 920 |
| Stage 1 | - | - | - | - | 896 | - |
| Stage 2 | - | _ | - | - | 867 | - |
| Platoon blocked, % | - | - | | - | | |
| Mov Cap-1 Maneuver | _ | - | 1387 | _ | 699 | 920 |
| Mov Cap-2 Maneuver | _ | | - | _ | 699 | - |
| Stage 1 | _ | _ | _ | _ | 896 | _ |
| Stage 2 | _ | _ | _ | _ | 867 | _ |
| Jiago Z | | | | | 507 | |
| | | | | | | |
| Approach | EB | | WB | | NB | |
| HCM Control Delay, s | 0 | | 0 | | 10.9 | |
| HCM LOS | | | | | В | |
| | | | | | | |
| Minor Lane/Major Mvmt | 1 | NBLn1 | EBT | EBR | WBL | WBT |
| Capacity (veh/h) | | 699 | - | | 1387 | - |
| HCM Lane V/C Ratio | | 0.123 | - | - | 1307 | - |
| HCM Control Delay (s) | | 10.9 | - | - | 0 | - |
| HCM Lane LOS | | В | - | - | A | - |
| HCM 95th %tile Q(veh) | | 0.4 | - | - | 0 | - |
| HOW FOUT FOUT QUELLY | | 0.7 | | | U | |

| Intersection | | | | | | |
|---------------------------------------|----------|----------|--------|----------|--------|------|
| Int Delay, s/veh | 1.9 | | | | | |
| | | EDD | WDI | WDT | NIDI | NDD |
| | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | } | ГГ | 0 | 4 | 42 | 0 |
| Traffic Vol, veh/h | 11 | 55 | 0 | 106 | 43 | 0 |
| Future Vol, veh/h | 11 | 55 | 0 | 106 | 43 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 12 | 60 | 0 | 115 | 47 | 0 |
| | | | | | | |
| Major/Minor Ma | ajor1 | _ N | Major2 | | Minor1 | |
| Conflicting Flow All | 0 | 0 | 72 | 0 | 157 | 42 |
| Stage 1 | - | - | - | - | 42 | - |
| Stage 2 | _ | _ | _ | _ | 115 | _ |
| Critical Hdwy | - | | 4.12 | - | 6.42 | 6.22 |
| Critical Hdwy Stg 1 | - | - | 4.12 | - | 5.42 | 0.22 |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 | - |
| Follow-up Hdwy | - | - | 2.218 | - | 3.518 | |
| Pot Cap-1 Maneuver | - | - | 1528 | - | 834 | 1029 |
| | - | - | 1020 | - | 980 | 1029 |
| Stage 1 Stage 2 | - | - | - | - | 910 | - |
| Platoon blocked, % | - | - | | | 910 | - |
| | - | - | 1520 | - | 024 | 1020 |
| Mov Cap-1 Maneuver | - | - | 1528 | - | 834 | 1029 |
| Mov Cap-2 Maneuver | - | - | - | - | 834 | - |
| Stage 1 | - | - | - | - | 980 | - |
| Stage 2 | - | - | - | - | 910 | - |
| | | | | | | |
| Approach | EB | | WB | | NB | |
| HCM Control Delay, s | 0 | | 0 | | 9.6 | |
| HCM LOS | - 0 | | | | A | |
| | | | | | , (| |
| Minor Lane/Major Mvmt | N | NBLn1 | EBT | EBR | WBL | WBT |
| | ı l | | | | | |
| Capacity (veh/h) | | 834 | - | - | 1528 | - |
| HCM Control Doloy (a) | | 0.056 | - | - | - | - |
| HCM Control Delay (s) | | 9.6 | - | - | 0 | - |
| LICM Lang LOC | | | | | | |
| HCM Lane LOS HCM 95th %tile Q(veh) | | A 0.2 | - | - | A 0 | - |

| | ۶ | → | • | • | ← | • | • | † | ~ | / | | |
|------------------------------|------|----------|------|------|------------|------|------|----------|------|----------|---------|------|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | Ť | ^ | 7 | ሻሻ | ∱ ኈ | | | र्स | 7 | ሻ | 1• | |
| Traffic Volume (veh/h) | 43 | 797 | 42 | 323 | 679 | 72 | 20 | 4 | 309 | 43 | 6 | 19 |
| Future Volume (veh/h) | 43 | 797 | 42 | 323 | 679 | 72 | 20 | 4 | 309 | 43 | 6 | 19 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 3 | 8 | 18 | 7 | 4 | 14 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1765 | 1765 | 1765 | 1765 | 1765 | 1800 | 1800 | 1765 | 1765 | 1765 | 1765 | 1800 |
| Adj Flow Rate, veh/h | 45 | 830 | 38 | 336 | 707 | 41 | 21 | 4 | 252 | 45 | 6 | 17 |
| Adj No. of Lanes | 1 | 2 | 1 | 2 | 2 | 0 | 0 | 1 | 1 | 1 | 1 | 0 |
| Peak Hour Factor | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 64 | 1049 | 446 | 831 | 1806 | 105 | 542 | 95 | 580 | 488 | 157 | 445 |
| Arrive On Green | 0.04 | 0.30 | 0.30 | 0.28 | 0.55 | 0.55 | 0.39 | 0.39 | 0.39 | 0.39 | 0.39 | 0.39 |
| Sat Flow, veh/h | 1580 | 3529 | 1498 | 2992 | 3304 | 192 | 1172 | 246 | 1500 | 1052 | 407 | 1152 |
| Grp Volume(v), veh/h | 45 | 830 | 38 | 336 | 377 | 371 | 25 | 0 | 252 | 45 | 0 | 23 |
| Grp Sat Flow(s),veh/h/ln | 1580 | 1765 | 1498 | 1496 | 1765 | 1731 | 1419 | 0 | 1500 | 1052 | 0 | 1558 |
| Q Serve(g_s), s | 2.1 | 16.2 | 1.4 | 6.9 | 9.3 | 9.3 | 0.4 | 0.0 | 9.3 | 2.1 | 0.0 | 0.7 |
| Cycle Q Clear(g_c), s | 2.1 | 16.2 | 1.4 | 6.9 | 9.3 | 9.3 | 1.0 | 0.0 | 9.3 | 3.1 | 0.0 | 0.7 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.11 | 0.84 | | 1.00 | 1.00 | | 0.74 |
| Lane Grp Cap(c), veh/h | 64 | 1049 | 446 | 831 | 965 | 946 | 637 | 0 | 580 | 488 | 0 | 603 |
| V/C Ratio(X) | 0.70 | 0.79 | 0.09 | 0.40 | 0.39 | 0.39 | 0.04 | 0.00 | 0.43 | 0.09 | 0.00 | 0.04 |
| Avail Cap(c_a), veh/h | 143 | 1049 | 446 | 831 | 965 | 946 | 637 | 0 | 580 | 488 | 0 | 603 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 0.91 | 0.91 | 0.91 | 0.95 | 0.95 | 0.95 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 35.5 | 24.2 | 19.0 | 22.0 | 9.8 | 9.8 | 14.4 | 0.0 | 17.0 | 15.4 | 0.0 | 14.3 |
| Incr Delay (d2), s/veh | 4.7 | 5.6 | 0.3 | 0.1 | 1.1 | 1.2 | 0.1 | 0.0 | 2.4 | 0.4 | 0.0 | 0.1 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.0 | 8.6 | 0.6 | 2.8 | 4.8 | 4.7 | 0.3 | 0.0 | 4.2 | 0.7 | 0.0 | 0.3 |
| LnGrp Delay(d),s/veh | 40.2 | 29.8 | 19.3 | 22.1 | 10.9 | 11.0 | 14.5 | 0.0 | 19.3 | 15.8 | 0.0 | 14.4 |
| LnGrp LOS | D | С | В | С | В | В | В | | В | В | | В |
| Approach Vol, veh/h | | 913 | | | 1084 | | | 277 | | | 68 | |
| Approach Delay, s/veh | | 29.8 | | | 14.4 | | | 18.9 | | | 15.3 | |
| Approach LOS | | С | | | В | | | В | | | В | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 26.0 | 27.4 | | 33.6 | 7.2 | 46.1 | | 33.6 | | | | |
| Change Period (Y+Rc), s | 5.1 | * 5.1 | | 4.6 | * 4.2 | 5.1 | | 4.6 | | | | |
| Max Green Setting (Gmax), s | 9.8 | * 22 | | 29.0 | * 6.8 | 25.3 | | 29.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 8.9 | 18.2 | | 5.1 | 4.1 | 11.3 | | 11.3 | | | | |
| Green Ext Time (p_c), s | 0.1 | 1.6 | | 0.2 | 0.0 | 2.6 | | 0.5 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 21.0 | | | | | | | | | |
| HCM 2010 LOS | | | С | | | | | | | | | |
| Notes | | | | | | | | | | | | |

| Lane Configurations Traffic Volume (veh/h) Future Volume (veh/h) Number Initial Q (Qb), veh Ped-Bike Adj(A_pbT) 1. | 0 0 5 0 .00 | ************************************** | 365 365 12 | WBL 690 690 | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|--|-------------------------|--|------------------|-------------------|------|------|-----|-----|-----|------|------|------|
| Traffic Volume (veh/h) Future Volume (veh/h) Number Initial Q (Qb), veh Ped-Bike Adj(A_pbT) 1. | 0 5 0 .00 | 784 784 2 | 365 365 | 690 | | | | | | | | ODIN |
| Future Volume (veh/h) Number Initial Q (Qb), veh Ped-Bike Adj(A_pbT) 1. | 0 5 0 .00 | 784 2 | 365 | | 050 | | | | | ሻ | 4 | 7 |
| Number Initial Q (Qb), veh Ped-Bike Adj(A_pbT) 1. | 5 0 .00 | 2 | | 600 | 958 | 0 | 0 | 0 | 0 | 92 | 0 | 115 |
| Initial Q (Qb), veh Ped-Bike Adj(A_pbT) 1. | .00 | | 12 | | 958 | 0 | 0 | 0 | 0 | 92 | 0 | 115 |
| Ped-Bike Adj(A_pbT) 1. | .00 | 0 | | 1 | 6 | 16 | | | | 7 | 4 | 14 |
| , | | | 0 | 0 | 0 | 0 | | | | 0 | 0 | 0 |
| Darking Ruc Adi 1 | $\Omega\Omega$ | | 0.99 | 1.00 | | 1.00 | | | | 1.00 | | 1.00 |
| | | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 0 | 1714 | 1731 | 1731 | 1782 | 0 | | | | 1731 | 1719 | 1714 |
| Adj Flow Rate, veh/h | 0 | 800 | 291 | 704 | 978 | 0 | | | | 117 | 0 | 49 |
| Adj No. of Lanes | 0 | 2 | 1 | 2 | 2 | 0 | | | | 2 | 0 | 1 |
| | .98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | | | | 0.98 | 0.98 | 0.98 |
| Percent Heavy Veh, % | 0 | 5 | 4 | 4 | 1 | 0 | | | | 4 | 0 | 5 |
| Cap, veh/h | 0 | 1492 | 631 | 790 | 2698 | 0 | | | | 402 | 0 | 178 |
| | .00 | 0.44 | 0.44 | 0.27 | 0.76 | 0.00 | | | | 0.12 | 0.00 | 0.12 |
| Sat Flow, veh/h | 0 | 3429 | 1451 | 2934 | 3564 | 0 | | | | 3297 | 0 | 1457 |
| Grp Volume(v), veh/h | 0 | 800 | 291 | 704 | 978 | 0 | | | | 117 | 0 | 49 |
| Grp Sat Flow(s),veh/h/ln | 0 | 1714 | 1451 | 1467 | 1782 | 0 | | | | 1648 | 0 | 1457 |
| | 0.0 | 13.8 | 11.3 | 18.5 | 7.4 | 0.0 | | | | 2.6 | 0.0 | 2.4 |
| 3 10- 7: | 0.0 | 13.8 | 11.3 | 18.5 | 7.4 | 0.0 | | | | 2.6 | 0.0 | 2.4 |
| • | .00 | | 1.00 | 1.00 | | 0.00 | | | | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 0 | 1492 | 631 | 790 | 2698 | 0 | | | | 402 | 0 | 178 |
| , , | .00 | 0.54 | 0.46 | 0.89 | 0.36 | 0.00 | | | | 0.29 | 0.00 | 0.28 |
| Avail Cap(c_a), veh/h | 0 | 1492 | 631 | 1056 | 2698 | 0 | | | | 412 | 0 | 182 |
| | .00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | | 1.00 | 1.00 | 1.00 |
| 1 '' | .00 | 0.70 | 0.70 | 0.51 | 0.51 | 0.00 | | | | 1.00 | 0.00 | 1.00 |
| J . , | 0.0 | 16.7 | 16.0 | 28.1 | 3.3 | 0.0 | | | | 32.0 | 0.0 | 31.9 |
| J \ /· | 0.0 | 1.0 | 1.7 | 3.4 | 0.2 | 0.0 | | | | 0.1 | 0.0 | 0.3 |
| J () | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | | 0.0 | 0.0 | 0.0 |
| | 0.0 | 6.6 | 4.8 | 7.8 | 3.6 | 0.0 | | | | 1.2 | 0.0 | 1.0 |
| | 0.0 | 17.6 | 17.7 | 31.5 | 3.5 | 0.0 | | | | 32.1 | 0.0 | 32.2 |
| LnGrp LOS | | В | В | С | A | | | | | С | | С |
| Approach Vol, veh/h | | 1091 | | | 1682 | | | | | | 166 | |
| Approach Delay, s/veh | | 17.6 | | | 15.2 | | | | | | 32.2 | |
| Approach LOS | | В | | | В | | | | | | С | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | | 6 | | | | | | |
| · · | 5.7 | 39.9 | | 14.4 | | 65.7 | | | | | | |
| | 4.2 | 5.1 | | 4.6 | | 5.1 | | | | | | |
| • • • | 29 | 27.3 | | 10.0 | | 60.3 | | | | | | |
| O i | 0.5 | 15.8 | | 4.6 | | 9.4 | | | | | | |
| | 1.1 | 3.4 | | 0.1 | | 5.2 | | | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 17.1 | | | | | | | | | |
| HCM 2010 LOS | | | В | | | | | | | | | |
| Notes | | | | | | | | | | | | |

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|------------------------------|------|----------|------|------|----------|------|------|----------|-------------|----------|-----|-----|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | 1,1 | ^ | | | ^ | 7 | 7 | 4 | 7 | | | |
| Traffic Volume (veh/h) | 110 | 765 | 0 | 0 | 1350 | 137 | 299 | 122 | 682 | 0 | 0 | 0 |
| Future Volume (veh/h) | 110 | 765 | 0 | 0 | 1350 | 137 | 299 | 122 | 682 | 0 | 0 | 0 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 3 | 8 | 18 | | | |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | | | |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | |
| Adj Sat Flow, veh/h/ln | 1765 | 1714 | 0 | 0 | 1765 | 1667 | 1765 | 1707 | 1698 | | | |
| Adj Flow Rate, veh/h | 115 | 797 | 0 | 0 | 1406 | 95 | 250 | 347 | 332 | | | |
| Adj No. of Lanes | 2 | 2 | 0 | 0 | 2 | 1 | 1 | 1 | 1 | | | |
| Peak Hour Factor | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | | | |
| Percent Heavy Veh, % | 2 | 5 | 0 | 0 | 2 | 8 | 2 | 5 | 6 | | | |
| Cap, veh/h | 172 | 2082 | 0 | 0 | 1754 | 704 | 456 | 464 | 390 | | | |
| Arrive On Green | 0.12 | 1.00 | 0.00 | 0.00 | 0.50 | 0.50 | 0.27 | 0.27 | 0.27 | | | |
| Sat Flow, veh/h | 2992 | 3429 | 0 | 0 | 3529 | 1417 | 1681 | 1707 | 1437 | | | |
| Grp Volume(v), veh/h | 115 | 797 | 0 | 0 | 1406 | 95 | 250 | 347 | 332 | | | |
| Grp Sat Flow(s), veh/h/ln | 1496 | 1714 | 0 | 0 | 1765 | 1417 | 1681 | 1707 | 1437 | | | |
| Q Serve(g_s), s | 2.9 | 0.0 | 0.0 | 0.0 | 26.6 | 2.9 | 10.2 | 14.9 | 17.5 | | | |
| Cycle Q Clear(g_c), s | 2.9 | 0.0 | 0.0 | 0.0 | 26.6 | 2.9 | 10.2 | 14.9 | 17.5 | | | |
| Prop In Lane | 1.00 | | 0.00 | 0.00 | | 1.00 | 1.00 | | 1.00 | | | |
| Lane Grp Cap(c), veh/h | 172 | 2082 | 0 | 0 | 1754 | 704 | 456 | 464 | 390 | | | |
| V/C Ratio(X) | 0.67 | 0.38 | 0.00 | 0.00 | 0.80 | 0.13 | 0.55 | 0.75 | 0.85 | | | |
| Avail Cap(c_a), veh/h | 187 | 2082 | 0 | 0 | 1754 | 704 | 651 | 662 | 557 | | | |
| HCM Platoon Ratio | 2.00 | 2.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | |
| Upstream Filter(I) | 0.85 | 0.85 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | |
| Uniform Delay (d), s/veh | 34.7 | 0.0 | 0.0 | 0.0 | 16.8 | 10.8 | 24.9 | 26.6 | 27.6 | | | |
| Incr Delay (d2), s/veh | 5.0 | 0.5 | 0.0 | 0.0 | 4.0 | 0.4 | 0.4 | 1.4 | 6.2 | | | |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | |
| %ile BackOfQ(50%),veh/ln | 1.3 | 0.1 | 0.0 | 0.0 | 13.9 | 1.2 | 4.8 | 7.1 | 7.6 | | | |
| LnGrp Delay(d),s/veh | 39.7 | 0.5 | 0.0 | 0.0 | 20.8 | 11.2 | 25.3 | 28.1 | 33.8 | | | |
| LnGrp LOS | D | A | | | C | В | С | С | С | | | |
| Approach Vol, veh/h | | 912 | | | 1501 | | | 929 | | | | |
| Approach Delay, s/veh | | 5.4 | | | 20.2 | | | 29.4 | | | | |
| Approach LOS | | А | | | С | | | С | | | | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | | 2 | | | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | | 53.7 | | | 8.8 | 44.9 | | 26.3 | | | | |
| Change Period (Y+Rc), s | | 5.1 | | | * 4.2 | 5.1 | | 4.6 | | | | |
| Max Green Setting (Gmax), s | | 39.3 | | | * 5 | 30.1 | | 31.0 | | | | |
| Max Q Clear Time (g_c+I1), s | | 2.0 | | | 4.9 | 28.6 | | 19.5 | | | | |
| Green Ext Time (p_c), s | | 3.9 | | | 0.0 | 1.0 | | 1.8 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 18.7 | | | | | | | | | - |
| HCM 2010 LOS | | | В | | | | | | | | | |
| Notes | | | | | | | | | | | | |

ATTACHMENT B

E+P FREEWAY OFF-RAMP QUEUING ANALYSIS WORKSHEETS



| | • | • | † | / | ļ |
|-------------------------|------|------|----------|------|------|
| Lane Group | WBL | WBR | NBT | NBR | SBT |
| Lane Group Flow (vph) | 137 | 185 | 1124 | 615 | 1509 |
| v/c Ratio | 0.47 | 0.56 | 0.51 | 0.53 | 0.68 |
| Control Delay | 27.3 | 19.5 | 2.7 | 1.2 | 6.4 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 27.3 | 19.5 | 2.7 | 1.2 | 6.4 |
| Queue Length 50th (ft) | 48 | 34 | 36 | 0 | 75 |
| Queue Length 95th (ft) | 90 | 81 | 46 | 1 | 168 |
| Internal Link Dist (ft) | | | 112 | | 96 |
| Turn Bay Length (ft) | | 1000 | | | |
| Base Capacity (vph) | 369 | 403 | 2216 | 1151 | 2232 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.37 | 0.46 | 0.51 | 0.53 | 0.68 |
| Intersection Summary | | | | | |

| | • | \rightarrow | † | ~ | ļ | 4 |
|-------------------------|------|---------------|----------|------|------|------|
| Lane Group | EBL | EBR | NBT | NBR | SBT | SBR |
| Lane Group Flow (vph) | 258 | 334 | 1501 | 488 | 858 | 149 |
| v/c Ratio | 0.75 | 0.76 | 0.72 | 0.33 | 0.43 | 0.11 |
| Control Delay | 35.4 | 25.0 | 12.2 | 0.6 | 8.6 | 0.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 35.4 | 25.0 | 12.2 | 0.6 | 8.6 | 0.1 |
| Queue Length 50th (ft) | 90 | 66 | 178 | 0 | 65 | 0 |
| Queue Length 95th (ft) | #168 | #155 | 269 | 0 | 139 | m0 |
| Internal Link Dist (ft) | | | 135 | | 136 | |
| Turn Bay Length (ft) | | 915 | | | | |
| Base Capacity (vph) | 405 | 494 | 2077 | 1485 | 2018 | 1367 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.64 | 0.68 | 0.72 | 0.33 | 0.43 | 0.11 |

Intersection Summary

^{# 95}th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

| | _ | _ | _ | ← | _ | 1 | 1 |
|-------------------------|------|------|------|----------|------|------|------|
| | - | • | * | | | * | • |
| Lane Group | EBT | EBR | WBL | WBT | SBL | SBT | SBR |
| Lane Group Flow (vph) | 618 | 170 | 432 | 1306 | 85 | 81 | 78 |
| v/c Ratio | 0.33 | 0.20 | 0.75 | 0.47 | 0.46 | 0.34 | 0.31 |
| Control Delay | 13.4 | 3.1 | 36.7 | 3.7 | 45.0 | 19.1 | 12.2 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 |
| Total Delay | 13.4 | 3.1 | 36.7 | 3.7 | 45.0 | 19.1 | 12.2 |
| Queue Length 50th (ft) | 94 | 0 | 132 | 63 | 48 | 13 | 0 |
| Queue Length 95th (ft) | 161 | 36 | m153 | m160 | 94 | 53 | 38 |
| Internal Link Dist (ft) | 609 | | | 506 | | 1275 | |
| Turn Bay Length (ft) | | | 200 | | | | 360 |
| Base Capacity (vph) | 1868 | 846 | 887 | 2788 | 257 | 306 | 316 |
| Starvation Cap Reductn | 0 | 0 | 0 | 297 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.33 | 0.20 | 0.49 | 0.52 | 0.33 | 0.26 | 0.25 |
| Intersection Summary | | | | | | | |

m Volume for 95th percentile queue is metered by upstream signal.

| | • | → | • | • | • | † | <i>></i> |
|----------------------------|------|----------|------|------|------|----------|-------------|
| Lane Group | EBL | EBT | WBT | WBR | NBL | NBT | NBR |
| | | | | | | | |
| Lane Group Flow (vph) | 146 | 611 | 1277 | 314 | 481 | 592 | 566 |
| v/c Ratio | 0.80 | 0.33 | 0.84 | 0.39 | 0.91 | 0.88 | 0.84 |
| Control Delay | 85.4 | 8.1 | 29.2 | 3.5 | 51.3 | 32.6 | 28.0 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 85.4 | 8.1 | 29.2 | 3.5 | 51.3 | 32.6 | 28.0 |
| Queue Length 50th (ft) | 51 | 48 | 319 | 0 | 267 | 198 | 170 |
| Queue Length 95th (ft) | #111 | 63 | 410 | 47 | #460 | #406 | #367 |
| Internal Link Dist (ft) | | 506 | 361 | | | 1432 | |
| Turn Bay Length (ft) | 200 | | | | | | 120 |
| Base Capacity (vph) | 182 | 1838 | 1519 | 809 | 551 | 693 | 690 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.80 | 0.33 | 0.84 | 0.39 | 0.87 | 0.85 | 0.82 |
| latana satisma Communicano | | | | | | | |
| Intersection Summary | | | | | | | |

⁹⁵th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.

2: Phillips Ranch Rd. & SR-60 WB Ramps

| | • | • | † | / | ļ |
|-------------------------|------|------|----------|------|------|
| Lane Group | WBL | WBR | NBT | NBR | SBT |
| Lane Group Flow (vph) | 245 | 218 | 666 | 245 | 1030 |
| v/c Ratio | 0.67 | 0.44 | 0.33 | 0.27 | 0.52 |
| Control Delay | 29.4 | 8.1 | 9.2 | 4.9 | 8.7 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 29.4 | 8.1 | 9.2 | 4.9 | 8.7 |
| Queue Length 50th (ft) | 86 | 13 | 32 | 0 | 85 |
| Queue Length 95th (ft) | 137 | 53 | 130 | 57 | 163 |
| Internal Link Dist (ft) | | | 112 | | 96 |
| Turn Bay Length (ft) | | 1000 | | | |
| Base Capacity (vph) | 525 | 625 | 1999 | 914 | 1990 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.47 | 0.35 | 0.33 | 0.27 | 0.52 |
| Intersection Summary | | | | | |

3: Phillips Ranch Rd. & SR-60 EB Off-Ramp

| | ٠ | • | † | ~ | ↓ | 1 |
|-------------------------|------|------|----------|------|----------|------|
| Lane Group | EBL | EBR | NBT | NBR | SBT | SBR |
| Lane Group Flow (vph) | 374 | 383 | 528 | 174 | 719 | 307 |
| v/c Ratio | 0.78 | 0.71 | 0.31 | 0.13 | 0.41 | 0.21 |
| Control Delay | 30.0 | 20.2 | 10.8 | 0.2 | 8.5 | 0.3 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 30.0 | 20.2 | 10.8 | 0.2 | 8.5 | 0.3 |
| Queue Length 50th (ft) | 126 | 88 | 54 | 0 | 47 | 0 |
| Queue Length 95th (ft) | 189 | 147 | 99 | 0 | 77 | 0 |
| Internal Link Dist (ft) | | | 135 | | 136 | |
| Turn Bay Length (ft) | | 915 | | | | |
| Base Capacity (vph) | 630 | 684 | 1698 | 1391 | 1748 | 1440 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.59 | 0.56 | 0.31 | 0.13 | 0.41 | 0.21 |
| Intersection Summary | | | | | | |

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|-------------------------|------|------|----------|------|----------|----------|------|
| | | | V | | | V | |
| Lane Group | EBT | EBR | WBL | WBT | SBL | SBT | SBR |
| Lane Group Flow (vph) | 800 | 372 | 704 | 978 | 73 | 70 | 68 |
| v/c Ratio | 0.53 | 0.45 | 0.82 | 0.34 | 0.38 | 0.27 | 0.26 |
| Control Delay | 19.9 | 5.1 | 36.2 | 4.6 | 38.5 | 8.7 | 8.4 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 19.9 | 5.1 | 36.2 | 4.6 | 38.5 | 8.7 | 8.4 |
| Queue Length 50th (ft) | 151 | 9 | 215 | 77 | 36 | 0 | 0 |
| Queue Length 95th (ft) | 229 | 73 | m260 | m121 | 78 | 28 | 26 |
| Internal Link Dist (ft) | 609 | | | 506 | | 1275 | |
| Turn Bay Length (ft) | | | 200 | | | | 360 |
| Base Capacity (vph) | 1520 | 832 | 1053 | 2862 | 193 | 264 | 257 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.53 | 0.45 | 0.67 | 0.34 | 0.38 | 0.27 | 0.26 |
| Intersection Summary | | | | | | | |

m Volume for 95th percentile queue is metered by upstream signal.

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|-------------------------|------|----------|----------|------|------|----------|------|
| Lane Group | EBL | EBT | WBT | WBR | NBL | NBT | NBR |
| Lane Group Flow (vph) | 115 | 797 | 1406 | 143 | 280 | 442 | 426 |
| v/c Ratio | 0.50 | 0.40 | 0.83 | 0.19 | 0.61 | 0.83 | 0.85 |
| Control Delay | 51.1 | 8.3 | 27.4 | 3.9 | 29.1 | 31.3 | 33.3 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 51.1 | 8.3 | 27.4 | 3.9 | 29.1 | 31.3 | 33.3 |
| Queue Length 50th (ft) | 35 | 49 | 326 | 0 | 124 | 144 | 139 |
| Queue Length 95th (ft) | #73 | 114 | #514 | 35 | 180 | 229 | 226 |
| Internal Link Dist (ft) | | 506 | 361 | | | 1432 | |
| Turn Bay Length (ft) | 200 | | | | | | 120 |
| Base Capacity (vph) | 231 | 2015 | 1697 | 755 | 610 | 668 | 629 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.50 | 0.40 | 0.83 | 0.19 | 0.46 | 0.66 | 0.68 |
| Intersection Summary | | | | | | | |

⁹⁵th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.

| ATTACHMENT C | |
|---|--|
| OPENING YEAR CUMULATIVE (2020) WITH PROJECT HCM ANALYSIS WORKSHEETS | |
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|------------------------------|-------|------|----------|------|------|----------|------|
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| Movement | WBL | WBR | NBT | NBR | SBL | SBT | |
| Lane Configurations | 1,1 | 77 | ^ | 7 | ሻ | ^ | |
| Traffic Volume (veh/h) | 987 | 635 | 884 | 575 | 335 | 726 | |
| Future Volume (veh/h) | 987 | 635 | 884 | 575 | 335 | 726 | |
| Number | 3 | 18 | 2 | 12 | 1 | 6 | |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | |
| Ped-Bike Adj(A_pbT) | 1.00 | 1.00 | | 0.99 | 1.00 | | |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| Adj Sat Flow, veh/h/ln | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | |
| Adj Flow Rate, veh/h | 1073 | 435 | 961 | 443 | 364 | 789 | |
| Adj No. of Lanes | 2 | 2 | 2 | 1 | 1 | 2 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | |
| Cap, veh/h | 1101 | 1104 | 1005 | 424 | 379 | 1977 | |
| Arrive On Green | 0.36 | 0.36 | 0.56 | 0.56 | 0.24 | 0.55 | |
| Sat Flow, veh/h | 3051 | 3060 | 3600 | 1519 | 1611 | 3600 | |
| Grp Volume(v), veh/h | 1073 | 435 | 961 | 443 | 364 | 789 | |
| Grp Sat Flow(s),veh/h/ln | 1526 | 1530 | 1800 | 1519 | 1611 | 1800 | |
| Q Serve(g_s), s | 41.6 | 12.7 | 30.4 | 33.5 | 26.8 | 15.2 | |
| Cycle Q Clear(g_c), s | 41.6 | 12.7 | 30.4 | 33.5 | 26.8 | 15.2 | |
| Prop In Lane | 1.00 | 1.00 | | 1.00 | 1.00 | | |
| Lane Grp Cap(c), veh/h | 1101 | 1104 | 1005 | 424 | 379 | 1977 | |
| V/C Ratio(X) | 0.97 | 0.39 | 0.96 | 1.04 | 0.96 | 0.40 | |
| Avail Cap(c_a), veh/h | 1101 | 1104 | 1005 | 424 | 379 | 1977 | |
| HCM Platoon Ratio | 1.00 | 1.00 | 2.00 | 2.00 | 1.00 | 1.00 | |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| Uniform Delay (d), s/veh | 37.8 | 28.6 | 25.8 | 26.5 | 45.4 | 15.6 | |
| Incr Delay (d2), s/veh | 21.0 | 0.1 | 19.6 | 55.8 | 35.8 | 0.6 | |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| %ile BackOfQ(50%),veh/ln | 20.7 | 5.4 | 17.4 | 20.2 | 15.7 | 7.7 | |
| LnGrp Delay(d),s/veh | 58.8 | 28.7 | 45.4 | 82.3 | 81.2 | 16.2 | |
| LnGrp LOS | E | С | D | F | F | В | |
| Approach Vol, veh/h | 1508 | | 1404 | | | 1153 | |
| Approach Delay, s/veh | 50.1 | | 57.1 | | | 36.7 | |
| Approach LOS | D | | E | | | D | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 8 |
| Assigned Phs | 1 | 2 | | | | 6 | 8 |
| Phs Duration (G+Y+Rc), s | 32.4 | 38.9 | | | | 71.3 | 48.7 |
| Change Period (Y+Rc), s | * 4.2 | 5.4 | | | | 5.4 | 5.4 |
| Max Green Setting (Gmax), s | * 28 | 33.5 | | | | 65.9 | 43.3 |
| Max Q Clear Time (g_c+I1), s | 28.8 | 35.5 | | | | 17.2 | 43.6 |
| Green Ext Time (p_c), s | 0.0 | 0.0 | | | | 3.7 | 0.0 |
| Intersection Summary | | | | | | | |
| HCM 2010 Ctrl Delay | | | 48.7 | | | | |
| HCM 2010 LOS | | | D | | | | |
| | | | | | | | |
| Notes | | | | | | | |

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|------------------------------|-----|----------|------|------|----------|------|------|----------|------|-------------|------|------|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | | | 7 | | 7 | | ^ | 7 | | ħβ | |
| Traffic Volume (veh/h) | 0 | 0 | 0 | 153 | 0 | 195 | 0 | 1266 | 820 | 0 | 1008 | 705 |
| Future Volume (veh/h) | 0 | 0 | 0 | 153 | 0 | 195 | 0 | 1266 | 820 | 0 | 1008 | 705 |
| Number | | | | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | | | | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | | | | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | | | | 1748 | 0 | 1698 | 0 | 1765 | 1765 | 0 | 1731 | 1800 |
| Adj Flow Rate, veh/h | | | | 166 | 0 | 159 | 0 | 1376 | 0 | 0 | 1096 | 766 |
| Adj No. of Lanes | | | | 1 | 0 | 1 | 0 | 2 | 1 | 0 | 2 | 0 |
| Peak Hour Factor | | | | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | | | | 3 | 0 | 6 | 0 | 2 | 2 | 0 | 4 | 4 |
| Cap, veh/h | | | | 260 | 0 | 239 | 0 | 2285 | 971 | 0 | 1284 | 814 |
| Arrive On Green | | | | 0.17 | 0.00 | 0.17 | 0.00 | 1.00 | 0.00 | 0.00 | 0.65 | 0.65 |
| Sat Flow, veh/h | | | | 1564 | 0 | 1443 | 0 | 3529 | 1500 | 0 | 1983 | 1257 |
| Grp Volume(v), veh/h | | | | 166 | 0 | 159 | 0 | 1376 | 0 | 0 | 942 | 920 |
| Grp Sat Flow(s), veh/h/ln | | | | 1564 | 0 | 1443 | 0 | 1765 | 1500 | 0 | 1731 | 1509 |
| Q Serve(q_s), s | | | | 5.9 | 0.0 | 6.2 | 0.0 | 0.0 | 0.0 | 0.0 | 25.3 | 33.0 |
| Cycle Q Clear(q_c), s | | | | 5.9 | 0.0 | 6.2 | 0.0 | 0.0 | 0.0 | 0.0 | 25.3 | 33.0 |
| Prop In Lane | | | | 1.00 | | 1.00 | 0.00 | | 1.00 | 0.00 | | 0.83 |
| Lane Grp Cap(c), veh/h | | | | 260 | 0 | 239 | 0 | 2285 | 971 | 0 | 1121 | 977 |
| V/C Ratio(X) | | | | 0.64 | 0.00 | 0.66 | 0.00 | 0.60 | 0.00 | 0.00 | 0.84 | 0.94 |
| Avail Cap(c_a), veh/h | | | | 370 | 0 | 342 | 0 | 2285 | 971 | 0 | 1121 | 977 |
| HCM Platoon Ratio | | | | 1.00 | 1.00 | 1.00 | 1.00 | 2.00 | 2.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | | | | 1.00 | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | | | | 23.3 | 0.0 | 23.5 | 0.0 | 0.0 | 0.0 | 0.0 | 8.2 | 9.6 |
| Incr Delay (d2), s/veh | | | | 1.0 | 0.0 | 1.2 | 0.0 | 1.2 | 0.0 | 0.0 | 7.7 | 17.7 |
| Initial Q Delay(d3),s/veh | | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | | | | 2.6 | 0.0 | 2.6 | 0.0 | 0.4 | 0.0 | 0.0 | 14.2 | 18.1 |
| LnGrp Delay(d),s/veh | | | | 24.3 | 0.0 | 24.6 | 0.0 | 1.2 | 0.0 | 0.0 | 15.9 | 27.3 |
| LnGrp LOS | | | | С | | С | | Α | | | В | С |
| Approach Vol, veh/h | | | | | 325 | | | 1376 | | | 1862 | |
| Approach Delay, s/veh | | | | | 24.5 | | | 1.2 | | | 21.5 | |
| Approach LOS | | | | | С | | | Α | | | С | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | | 2 | | | | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | | 44.2 | | | | 44.2 | | 15.8 | | | | |
| Change Period (Y+Rc), s | | 5.4 | | | | 5.4 | | 5.8 | | | | |
| Max Green Setting (Gmax), s | | 34.6 | | | | 34.6 | | 14.2 | | | | |
| Max Q Clear Time (g_c+l1), s | | 2.0 | | | | 35.0 | | 8.2 | | | | |
| Green Ext Time (p_c), s | | 7.8 | | | | 0.0 | | 0.3 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 13.9 | | | | | | | | | |
| HCM 2010 LOS | | | В | | | | | | | | | |
| 110111 2010 200 | | | D | | | | | | | | | |

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|--|------|----------|-----------|----------|----------|-------------|------|----------|-------------|----------|----------|------|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | ሻ | | 7 | | | | | ^ | 7 | | ^ | 7 |
| Traffic Volume (veh/h) | 325 | 0 | 336 | 0 | 0 | 0 | 0 | 1762 | 490 | 0 | 993 | 168 |
| Future Volume (veh/h) | 325 | 0 | 336 | 0 | 0 | 0 | 0 | 1762 | 490 | 0 | 993 | 168 |
| Number | 7 | 4 | 14 | | | | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | | | | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | | | | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | | | | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1682 | 0 | 1748 | | | | 0 | 1782 | 1748 | 0 | 1731 | 1651 |
| Adj Flow Rate, veh/h | 357 | 0 | 254 | | | | 0 | 1936 | 0 | 0 | 1091 | 0 |
| Adj No. of Lanes | 1 | 0 | 1 | | | | 0 | 2 | 1 | 0 | 2 | 1 |
| Peak Hour Factor | 0.91 | 0.91 | 0.91 | | | | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 |
| Percent Heavy Veh, % | 7 | 0 | 3 | | | | 0 | 1 | 3 | 0 | 4 | 9 |
| Cap, veh/h | 397 | 0 | 391 | | | | 0 | 1960 | 817 | 0 | 1903 | 772 |
| Arrive On Green | 0.26 | 0.00 | 0.26 | | | | 0.00 | 0.55 | 0.00 | 0.00 | 0.73 | 0.00 |
| Sat Flow, veh/h | 1506 | 0 | 1485 | | | | 0 | 3564 | 1485 | 0 | 3462 | 1404 |
| Grp Volume(v), veh/h | 357 | 0 | 254 | | | | 0 | 1936 | 0 | 0 | 1091 | 0 |
| Grp Sat Flow(s),veh/h/ln | 1506 | 0 | 1485 | | | | 0 | 1782 | 1485 | 0 | 1731 | 1404 |
| Q Serve(g_s), s | 13.7 | 0.0 | 9.1 | | | | 0.0 | 32.1 | 0.0 | 0.0 | 8.7 | 0.0 |
| Cycle Q Clear(g_c), s | 13.7 | 0.0 | 9.1 | | | | 0.0 | 32.1 | 0.0 | 0.0 | 8.7 | 0.0 |
| Prop In Lane | 1.00 | | 1.00 | | | | 0.00 | | 1.00 | 0.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 397 | 0 | 391 | | | | 0 | 1960 | 817 | 0 | 1903 | 772 |
| V/C Ratio(X) | 0.90 | 0.00 | 0.65 | | | | 0.00 | 0.99 | 0.00 | 0.00 | 0.57 | 0.00 |
| Avail Cap(c_a), veh/h | 407 | 0 | 401 | | | | 0 | 1960 | 817 | 0 | 1903 | 772 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | | | | 1.00 | 1.00 | 1.00 | 1.00 | 1.33 | 1.33 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | | | | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 |
| Uniform Delay (d), s/veh | 21.3 | 0.0 | 19.6 | | | | 0.0 | 13.3 | 0.0 | 0.0 | 4.8 | 0.0 |
| Incr Delay (d2), s/veh | 21.4 | 0.0 | 2.7 | | | | 0.0 | 17.6 | 0.0 | 0.0 | 1.3 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 8.0 | 0.0 | 4.0 | | | | 0.0 | 20.4 | 0.0 | 0.0 | 4.4 | 0.0 |
| LnGrp Delay(d),s/veh | 42.7 | 0.0 | 22.4 | | | | 0.0 | 31.0 | 0.0 | 0.0 | 6.1 | 0.0 |
| LnGrp LOS | D | | С | | | | | С | | | Α | |
| Approach Vol, veh/h | | 611 | | | | | | 1936 | | | 1091 | |
| Approach Delay, s/veh | | 34.3 | | | | | | 31.0 | | | 6.1 | |
| Approach LOS | | С | | | | | | С | | | Α | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | • | 2 | <u> </u> | 4 | | 6 | , | 0 | | | | |
| Phs Duration (G+Y+Rc), s | | 38.4 | | 21.6 | | 38.4 | | | | | | |
| Change Period (Y+Rc), s | | 5.4 | | 5.8 | | 5.4 | | | | | | |
| Max Green Setting (Gmax), s | | 32.6 | | 16.2 | | 32.6 | | | | | | |
| Max Q Clear Time (g_c+l1), s | | 34.1 | | 15.7 | | 10.7 | | | | | | |
| Green Ext Time (p_c), s | | 0.0 | | 0.1 | | 5.1 | | | | | | |
| | | 0.0 | | . | | 0 11 | | | | | | |
| Intersection Summary HCM 2010 Ctrl Delay | | | 24.0 | | | | | | | | | |
| HCM 2010 LOS | | | 24.0 C | | | | | | | | | |
| HGWI 2010 LOS | | | C | | | | | | | | | |

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|------------------------------------|--------------|------------|--------------|------------|------------|-------------|----------|
| Movement | EBT | EBR | WBL | WBT | NBL | NBR | |
| Lane Configurations | ^ | 7 | ሻ | ^ ^ | ሻ | 7 | |
| Traffic Volume (veh/h) | 735 | 210 | 338 | 1308 | 127 | 155 | |
| Future Volume (veh/h) | 735 | 210 | 338 | 1308 | 127 | 155 | |
| Number | 2 | 12 | 1 | 6 | 3 | 18 | |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | |
| Ped-Bike Adj(A_pbT) | | 0.97 | 1.00 | | 1.00 | 1.00 | |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| Adj Sat Flow, veh/h/ln | 1765 | 1765 | 1765 | 1765 | 1765 | 1765 | |
| Adj Flow Rate, veh/h | 808 | 216 | 371 | 1437 | 140 | 126 | |
| Adj No. of Lanes | 2 | 1 | 1 | 3 | 1 | 1 | |
| Peak Hour Factor | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | |
| Percent Heavy Veh, % | 1540 | 2 | 2 | 2002 | 2 | 2 | |
| Cap, veh/h | 1569 | 646 | 406 | 3992 | 197 | 187 | |
| Arrive On Green | 0.44 | 0.44 | 0.26 | 0.75 | 0.12 | 0.12 | |
| Sat Flow, veh/h | 3529 | 1452 | 1580 | 5294 | 1580 | 1500 | |
| Grp Volume(v), veh/h | 808 | 216 | 371 | 1437 | 140 | 126 | |
| Grp Sat Flow(s), veh/h/ln | 1765 | 1452 | 1580 | 1765 | 1580 | 1500 | |
| Q Serve(g_s), s | 13.2 13.2 | 7.8 7.8 | 18.2 18.2 | 7.3 7.3 | 6.8 6.8 | 6.4 6.4 | |
| Cycle Q Clear(g_c), s Prop In Lane | 13.2 | 1.00 | 1.00 | 7.3 | 1.00 | 1.00 | |
| Lane Grp Cap(c), veh/h | 1569 | 646 | 406 | 3992 | 1.00 | 1.00 | |
| V/C Ratio(X) | 0.51 | 0.33 | 0.91 | 0.36 | 0.71 | 0.67 | |
| Avail Cap(c_a), veh/h | 1569 | 646 | 509 | 3992 | 304 | 289 | |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| Upstream Filter(I) | 1.00 | 1.00 | 0.32 | 0.32 | 1.00 | 1.00 | |
| Uniform Delay (d), s/veh | 16.0 | 14.5 | 28.9 | 3.3 | 33.6 | 33.5 | |
| Incr Delay (d2), s/veh | 1.2 | 1.4 | 6.4 | 0.1 | 1.8 | 1.6 | |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| %ile BackOfQ(50%),veh/ln | 6.7 | 3.4 | 8.7 | 3.5 | 3.1 | 2.7 | |
| LnGrp Delay(d),s/veh | 17.2 | 15.9 | 35.3 | 3.4 | 35.4 | 35.0 | |
| LnGrp LOS | В | В | D | Α | D | D | |
| Approach Vol, veh/h | 1024 | | | 1808 | 266 | | |
| Approach Delay, s/veh | 16.9 | | | 9.9 | 35.2 | | |
| Approach LOS | В | | | Α | D | | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Assigned Phs | 1 | 2 | | • | | 6 | <u> </u> |
| Phs Duration (G+Y+Rc), s | 24.8 | 40.7 | | | | 65.4 | |
| Change Period (Y+Rc), s | * 4.2 | 5.1 | | | | 5.1 | |
| Max Green Setting (Gmax), s | * 26 | 24.9 | | | | 54.9 | |
| Max Q Clear Time (g_c+l1), s | 20.2 | 15.2 | | | | 9.3 | |
| Green Ext Time (p_c), s | 0.3 | 3.1 | | | | 8.9 | |
| Intersection Summary | | | | | | | |
| HCM 2010 Ctrl Delay | | | 14.4 | | | | |
| HCM 2010 LOS | | | В | | | | |
| | | | | | | | |
| Notes | | | | | | | |

| Intersection | | | | | | |
|---|-------|----------------------|-------------|--------------|----------------|---------|
| Int Delay, s/veh | 1.8 | | | | | |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | EDI | LDK | WDL | | INDL | NOR |
| Traffic Vol, veh/h | 186 | 63 | ٥ | 4 3 | 17 60 | 0 |
| Future Vol, veh/h | 186 | 63 | 0 | 43 | 60 | |
| | 100 | 03 | 0 | 43 | | 0 |
| Conflicting Peds, #/hr Sign Control | | Free | | | 0 Ctop | O Ctop |
| RT Channelized | Free | None | Free | Free None | Stop | Stop |
| | - | None - | | | - | None |
| Storage Length | | | - | - | 0 | |
| Veh in Median Storage, | | - | - | 0 | 0 | - |
| Grade, % | 0 | - 02 | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 202 | 68 | 0 | 47 | 65 | 0 |
| | | | | | | |
| Major/Minor Ma | ajor1 | ľ | Major2 | | Minor1 | |
| Conflicting Flow All | 0 | 0 | 270 | 0 | 283 | 236 |
| Stage 1 | _ | _ | - | - | 236 | - |
| Stage 2 | _ | - | - | - | 47 | _ |
| Critical Hdwy | - | - | 4.12 | - | 6.42 | 6.22 |
| Critical Hdwy Stg 1 | _ | - | - | _ | 5.42 | - |
| Critical Hdwy Stg 2 | - | - | _ | - | 5.42 | _ |
| Follow-up Hdwy | _ | - | 2.218 | | | 3.318 |
| Pot Cap-1 Maneuver | - | - | 1293 | - | 707 | 803 |
| Stage 1 | - | - | _ | _ | 803 | _ |
| Stage 2 | - | _ | - | - | 975 | - |
| Platoon blocked, % | _ | _ | | _ | 7.0 | |
| Mov Cap-1 Maneuver | _ | - | 1293 | _ | 707 | 803 |
| Mov Cap-2 Maneuver | - | _ | | _ | 707 | - |
| Stage 1 | _ | _ | _ | _ | 803 | _ |
| Stage 2 | _ | | | _ | 975 | - |
| Jiago Z | _ | | | | 713 | |
| | | | | | | |
| Approach | EB | | WB | | NB | |
| HCM Control Delay, s | 0 | | 0 | | 10.6 | |
| HCM LOS | | | | | В | |
| | | | | | | |
| | | | | EBR | WBL | WBT |
| Minor Lane/Maior Mymt | 1 | VBI n1 | FRI | | | 4 4 D I |
| Minor Lane/Major Mvmt | 1 | VBLn1 | EBT | | | |
| Capacity (veh/h) | ľ | 707 | EBI - | - | 1293 | - |
| Capacity (veh/h) HCM Lane V/C Ratio | 1 | 707 0.092 | - | - | 1293 - | - |
| Capacity (veh/h) HCM Lane V/C Ratio HCM Control Delay (s) | ľ | 707 0.092 10.6 | - - - | - - - | 1293 - 0 | - - |
| Capacity (veh/h) HCM Lane V/C Ratio | ľ | 707 0.092 | - | - | 1293 - | - |

| Intersection | | | | | | |
|-------------------------|-------|--------|--------|--------|--------|--------|
| Int Delay, s/veh | 1.3 | | | | | |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | 7> | LDIN | VVDL | 4 | ¥ | NDIX |
| Traffic Vol, veh/h | 151 | 35 | 0 | 12 | 31 | 0 |
| Future Vol, veh/h | 151 | 35 | 0 | 12 | 31 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | | None | 310p | None |
| Storage Length | - | NONE - | - | NONE - | 0 | None - |
| Veh in Median Storage, | # 0 | - | - | 0 | 0 | - |
| | | | | 0 | | |
| Grade, % | 0 | - | - | | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 164 | 38 | 0 | 13 | 34 | 0 |
| | | | | | | |
| Major/Minor Major/Minor | ajor1 | N | Major2 | N | Minor1 | |
| Conflicting Flow All | 0 | 0 | 202 | 0 | 196 | 183 |
| Stage 1 | - | - | - | - | 183 | - |
| Stage 2 | _ | _ | _ | _ | 13 | _ |
| Critical Hdwy | _ | _ | 4.12 | - | 6.42 | 6.22 |
| Critical Hdwy Stg 1 | _ | _ | 7.12 | _ | 5.42 | 0.22 |
| Critical Hdwy Stg 2 | _ | | _ | _ | 5.42 | _ |
| Follow-up Hdwy | - | - | 2.218 | | 3.518 | |
| Pot Cap-1 Maneuver | | - | 1370 | - | 793 | 859 |
| | - | - | 1370 | - | 848 | |
| Stage 1 | - | - | - | - | | - |
| Stage 2 | - | - | - | - | 1010 | - |
| Platoon blocked, % | - | - | 4070 | - | 700 | 050 |
| Mov Cap-1 Maneuver | - | - | 1370 | - | 793 | 859 |
| Mov Cap-2 Maneuver | - | - | - | - | 793 | - |
| Stage 1 | - | - | - | - | 848 | - |
| Stage 2 | - | - | - | - | 1010 | - |
| | | | | | | |
| Approach | EB | | WB | | NB | |
| HCM Control Delay, s | 0 | | 0 | | 9.7 | |
| | U | | U | | | |
| HCM LOS | | | | | А | |
| | | | | | | |
| Minor Lane/Major Mvmt | | VBLn1 | EBT | EBR | WBL | WBT |
| Capacity (veh/h) | | 793 | - | - | 1370 | - |
| HCM Lane V/C Ratio | | 0.042 | - | - | - | - |
| HCM Control Delay (s) | | 9.7 | - | - | 0 | - |
| HCM Lane LOS | | Α | - | - | A | - |
| HCM 95th %tile Q(veh) | | 0.1 | - | - | 0 | - |
| | | | | | | |

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|------------------------------|-------|----------|------|----------|----------|------|------|----------|------|-------------|---------|------|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | 7 | ^ | 7 | ሻሻ | ħβ | | | 4 | 7 | 7 | ₽ | |
| Traffic Volume (veh/h) | 28 | 826 | 35 | 285 | 1538 | 48 | 43 | 7 | 160 | 80 | 17 | 65 |
| Future Volume (veh/h) | 28 | 826 | 35 | 285 | 1538 | 48 | 43 | 7 | 160 | 80 | 17 | 65 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 3 | 8 | 18 | 7 | 4 | 14 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.98 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1765 | 1765 | 1765 | 1765 | 1765 | 1800 | 1800 | 1765 | 1765 | 1765 | 1765 | 1800 |
| Adj Flow Rate, veh/h | 29 | 869 | 34 | 300 | 1619 | 48 | 45 | 7 | 123 | 84 | 18 | 47 |
| Adj No. of Lanes | 1 | 2 | 1 | 2 | 2 | 0 | 0 | 1 | 1 | 1 | 1 | 0 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 45 | 1415 | 592 | 367 | 1687 | 50 | 422 | 60 | 483 | 398 | 139 | 364 |
| Arrive On Green | 0.03 | 0.40 | 0.40 | 0.12 | 0.49 | 0.49 | 0.32 | 0.32 | 0.32 | 0.32 | 0.32 | 0.32 |
| Sat Flow, veh/h | 1580 | 3529 | 1477 | 2992 | 3411 | 101 | 1079 | 187 | 1500 | 1180 | 432 | 1128 |
| Grp Volume(v), veh/h | 29 | 869 | 34 | 300 | 836 | 831 | 52 | 0 | 123 | 84 | 0 | 65 |
| Grp Sat Flow(s),veh/h/ln | 1580 | 1765 | 1477 | 1496 | 1765 | 1747 | 1266 | 0 | 1500 | 1180 | 0 | 1561 |
| Q Serve(g_s), s | 1.6 | 17.6 | 1.3 | 8.8 | 40.9 | 41.3 | 2.1 | 0.0 | 5.4 | 5.0 | 0.0 | 2.7 |
| Cycle Q Clear(g_c), s | 1.6 | 17.6 | 1.3 | 8.8 | 40.9 | 41.3 | 4.7 | 0.0 | 5.4 | 9.8 | 0.0 | 2.7 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.06 | 0.87 | | 1.00 | 1.00 | | 0.72 |
| Lane Grp Cap(c), veh/h | 45 | 1415 | 592 | 367 | 873 | 864 | 483 | 0 | 483 | 398 | 0 | 503 |
| V/C Ratio(X) | 0.64 | 0.61 | 0.06 | 0.82 | 0.96 | 0.96 | 0.11 | 0.00 | 0.25 | 0.21 | 0.00 | 0.13 |
| Avail Cap(c_a), veh/h | 90 | 1415 | 592 | 492 | 873 | 864 | 483 | 0 | 483 | 398 | 0 | 503 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 0.81 | 0.81 | 0.81 | 0.73 | 0.73 | 0.73 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 43.3 | 21.4 | 16.5 | 38.5 | 21.8 | 21.9 | 22.8 | 0.0 | 22.5 | 25.9 | 0.0 | 21.6 |
| Incr Delay (d2), s/veh | 4.5 | 1.6 | 0.2 | 4.3 | 17.5 | 18.4 | 0.4 | 0.0 | 1.3 | 1.2 | 0.0 | 0.5 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.8 | 8.9 | 0.5 | 3.8 | 24.0 | 24.1 | 1.0 | 0.0 | 2.4 | 1.8 | 0.0 | 1.2 |
| LnGrp Delay(d),s/veh | 47.7 | 23.1 | 16.7 | 42.8 | 39.4 | 40.4 | 23.3 | 0.0 | 23.8 | 27.1 | 0.0 | 22.1 |
| LnGrp LOS | D | С | В | D | D | D | С | | С | С | | С |
| Approach Vol, veh/h | | 932 | | | 1967 | | | 175 | | | 149 | |
| Approach Delay, s/veh | | 23.6 | | | 40.3 | | | 23.6 | | | 24.9 | |
| Approach LOS | | С | | | D | | | С | | | С | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 15.2 | 41.2 | | 33.6 | 6.8 | 49.6 | | 33.6 | | | | |
| Change Period (Y+Rc), s | * 4.2 | 5.1 | | 4.6 | * 4.2 | 5.1 | | 4.6 | | | | |
| Max Green Setting (Gmax), s | * 15 | 32.3 | | 29.0 | * 5.1 | 42.0 | | 29.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 10.8 | 19.6 | | 11.8 | 3.6 | 43.3 | | 7.4 | | | | |
| Green Ext Time (p_c), s | 0.2 | 3.4 | | 0.4 | 0.0 | 0.0 | | 0.4 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 33.9 | | | | | | | | | |
| HCM 2010 LOS | | | С | | | | | | | | | |
| Notes | | | | | | | | | | | | |

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|------------------------------|----------|----------|------|------|----------|-------|-----|-----|-----|----------|------|------|
| | | - | * | ₩ | | | -7 | | 7 | _ | * | • |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | ^ | 7 | 44 | ^ | • | | 0 | • | ` | - ♣ | 7 |
| Traffic Volume (veh/h) | 0 | 864 | 203 | 585 | 1695 | 0 | 0 | 0 | 0 | 252 | 2 | 175 |
| Future Volume (veh/h) | 0 | 864 | 203 | 585 | 1695 | 0 | 0 | 0 | 0 | 252 | 2 | 175 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | | | | 7 | 4 | 14 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | | | | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.98 | 1.00 | | 1.00 | | | | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 0 | 1682 | 1667 | 1698 | 1714 | 0 | | | | 1682 | 1697 | 1731 |
| Adj Flow Rate, veh/h | 0 | 882 | 157 | 597 | 1730 | 0 | | | | 300 | 0 | 91 |
| Adj No. of Lanes | 0 | 2 | 1 | 2 | 2 | 0 | | | | 2 | 0 | 1 |
| Peak Hour Factor | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | | | | 0.98 | 0.98 | 0.98 |
| Percent Heavy Veh, % | 0 | 7 | 8 | 6 | 5 | 0 | | | | 7 | 0 | 4 |
| Cap, veh/h | 0 | 1831 | 759 | 654 | 2765 | 0 | | | | 362 | 0 | 166 |
| Arrive On Green | 0.00 | 0.54 | 0.54 | 0.23 | 0.81 | 0.00 | | | | 0.11 | 0.00 | 0.11 |
| Sat Flow, veh/h | 0 | 3364 | 1394 | 2879 | 3429 | 0 | | | | 3204 | 0 | 1471 |
| Grp Volume(v), veh/h | 0 | 882 | 157 | 597 | 1730 | 0 | | | | 300 | 0 | 91 |
| Grp Sat Flow(s),veh/h/ln | 0 | 1682 | 1394 | 1439 | 1714 | 0 | | | | 1602 | 0 | 1471 |
| Q Serve(g_s), s | 0.0 | 19.4 | 6.9 | 24.3 | 23.7 | 0.0 | | | | 11.0 | 0.0 | 7.0 |
| Cycle Q Clear(q_c), s | 0.0 | 19.4 | 6.9 | 24.3 | 23.7 | 0.0 | | | | 11.0 | 0.0 | 7.0 |
| Prop In Lane | 0.00 | | 1.00 | 1.00 | | 0.00 | | | | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 0 | 1831 | 759 | 654 | 2765 | 0 | | | | 362 | 0 | 166 |
| V/C Ratio(X) | 0.00 | 0.48 | 0.21 | 0.91 | 0.63 | 0.00 | | | | 0.83 | 0.00 | 0.55 |
| Avail Cap(c_a), veh/h | 0 | 1831 | 759 | 883 | 2765 | 0 | | | | 625 | 0 | 287 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 0.00 | 0.81 | 0.81 | 0.09 | 0.09 | 0.00 | | | | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 0.0 | 16.9 | 14.0 | 45.2 | 4.5 | 0.0 | | | | 52.1 | 0.0 | 50.3 |
| Incr Delay (d2), s/veh | 0.0 | 0.7 | 0.5 | 1.0 | 0.1 | 0.0 | | | | 1.9 | 0.0 | 1.1 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.0 | 9.1 | 2.8 | 9.7 | 11.1 | 0.0 | | | | 5.0 | 0.0 | 2.9 |
| LnGrp Delay(d),s/veh | 0.0 | 17.6 | 14.5 | 46.2 | 4.6 | 0.0 | | | | 54.0 | 0.0 | 51.4 |
| LnGrp LOS | | В | В | D | Α | | | | | D | | D |
| Approach Vol, veh/h | | 1039 | | | 2327 | | | | | | 391 | |
| Approach Delay, s/veh | | 17.2 | | | 15.3 | | | | | | 53.4 | |
| Approach LOS | | В | | | В | | | | | | D | |
| | | | | | | | | | | | D | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | | 6 | | | | | | |
| Phs Duration (G+Y+Rc), s | 31.5 | 70.4 | | 18.1 | | 101.9 | | | | | | |
| Change Period (Y+Rc), s | * 4.2 | 5.1 | | 4.6 | | 5.1 | | | | | | |
| Max Green Setting (Gmax), s | * 37 | 45.9 | | 23.4 | | 86.9 | | | | | | |
| Max Q Clear Time (g_c+I1), s | 26.3 | 21.4 | | 13.0 | | 25.7 | | | | | | |
| Green Ext Time (p_c), s | 1.0 | 4.6 | | 0.5 | | 13.6 | | | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 19.8 | | | | | | | | | |
| HCM 2010 LOS | | | В | | | | | | | | | |
| Notes | | | | | | | | | | | | |

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|------------------------------|------|----------|------|------|----------|-------|------|-------|-------------|-------------|-----|-----|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | 1,1 | ^ | | | ^ | 7 | ň | 4 | 7 | | | |
| Traffic Volume (veh/h) | 163 | 953 | 0 | 0 | 1696 | 360 | 584 | 77 | 1138 | 0 | 0 | 0 |
| Future Volume (veh/h) | 163 | 953 | 0 | 0 | 1696 | 360 | 584 | 77 | 1138 | 0 | 0 | 0 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 3 | 8 | 18 | | | |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | | | |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | |
| Adj Sat Flow, veh/h/ln | 1782 | 1682 | 0 | 0 | 1731 | 1698 | 1714 | 1737 | 1817 | | | |
| Adj Flow Rate, veh/h | 173 | 1014 | 0 | 0 | 1804 | 221 | 946 | 0 | 547 | | | |
| Adj No. of Lanes | 2 | 2 | 0 | 0 | 2 | 1 | 2 | 0 | 1 | | | |
| Peak Hour Factor | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | | | |
| Percent Heavy Veh, % | 1 | 7 | 0 | 0 | 4 | 6 | 5 | 7 | 3 | | | |
| Cap, veh/h | 882 | 2788 | 0 | 0 | 1711 | 713 | 1127 | 0 | 533 | | | |
| Arrive On Green | 0.58 | 1.00 | 0.00 | 0.00 | 0.49 | 0.49 | 0.34 | 0.00 | 0.34 | | | |
| Sat Flow, veh/h | 3021 | 3364 | 0 | 0 | 3462 | 1443 | 3265 | 0 | 1545 | | | |
| Grp Volume(v), veh/h | 173 | 1014 | 0 | 0 | 1804 | 221 | 946 | 0 | 547 | | | |
| Grp Sat Flow(s),veh/h/ln | 1511 | 1682 | 0 | 0 | 1731 | 1443 | 1633 | 0 | 1545 | | | |
| Q Serve(g_s), s | 3.2 | 0.0 | 0.0 | 0.0 | 59.3 | 11.0 | 32.1 | 0.0 | 41.4 | | | |
| Cycle Q Clear(g_c), s | 3.2 | 0.0 | 0.0 | 0.0 | 59.3 | 11.0 | 32.1 | 0.0 | 41.4 | | | |
| Prop In Lane | 1.00 | | 0.00 | 0.00 | | 1.00 | 1.00 | | 1.00 | | | |
| Lane Grp Cap(c), veh/h | 882 | 2788 | 0 | 0 | 1711 | 713 | 1127 | 0 | 533 | | | |
| V/C Ratio(X) | 0.20 | 0.36 | 0.00 | 0.00 | 1.05 | 0.31 | 0.84 | 0.00 | 1.03 | | | |
| Avail Cap(c_a), veh/h | 882 | 2788 | 0 | 0 | 1711 | 713 | 1127 | 0 | 533 | | | |
| HCM Platoon Ratio | 2.00 | 2.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | |
| Upstream Filter(I) | 0.81 | 0.81 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | | | |
| Uniform Delay (d), s/veh | 18.4 | 0.0 | 0.0 | 0.0 | 30.3 | 18.1 | 36.2 | 0.0 | 39.3 | | | |
| Incr Delay (d2), s/veh | 0.0 | 0.3 | 0.0 | 0.0 | 37.8 | 1.1 | 5.5 | 0.0 | 45.9 | | | |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | |
| %ile BackOfQ(50%),veh/ln | 1.3 | 0.1 | 0.0 | 0.0 | 37.3 | 4.6 | 15.3 | 0.0 | 24.4 | | | |
| LnGrp Delay(d),s/veh | 18.4 | 0.3 | 0.0 | 0.0 | 68.1 | 19.3 | 41.7 | 0.0 | 85.2 | | | |
| LnGrp LOS | В | A | | | F | В | D | 1.100 | F | | | |
| Approach Vol, veh/h | | 1187 | | | 2025 | | | 1493 | | | | |
| Approach Delay, s/veh | | 2.9 | | | 62.8 | | | 57.6 | | | | |
| Approach LOS | | А | | | Е | | | E | | | | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | | 2 | | | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | | 105.2 | | | 40.8 | 64.4 | | 46.0 | | | | |
| Change Period (Y+Rc), s | | 5.1 | | | 5.1 | * 5.1 | | 4.6 | | | | |
| Max Green Setting (Gmax), s | | 68.9 | | | 5.4 | * 59 | | 41.4 | | | | |
| Max Q Clear Time (g_c+I1), s | | 2.0 | | | 5.2 | 61.3 | | 43.4 | | | | |
| Green Ext Time (p_c), s | | 5.5 | | | 0.0 | 0.0 | | 0.0 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 46.1 | | | | | | | | | |
| HCM 2010 LOS | | | D | | | | | | | | | |
| | | | | | | | | | | | | |
| Notes | | | | | | | | | | | | |

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|--|-------------|-------------|--------------|-------------|-------------|--------------|------|
| Movement | WBL | WBR | NBT | NBR | SBL | SBT | |
| Lane Configurations | ሻሻ | 77 | ^ | 7 | * | ^ | |
| Traffic Volume (veh/h) | 449 | 346 | 573 | 614 | 483 | 820 | |
| Future Volume (veh/h) | 449 | 346 | 573 | 614 | 483 | 820 | |
| Number | 3 | 18 | 2 | 12 | 1 | 6 | |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | |
| Ped-Bike Adj(A_pbT) | 1.00 | 1.00 | | 1.00 | 1.00 | | |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| Adj Sat Flow, veh/h/ln | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | |
| Adj Flow Rate, veh/h | 463 | 221 | 591 | 509 | 498 | 845 | |
| Adj No. of Lanes | 2 | 2 | 2 | 1 | 1 | 2 | |
| Peak Hour Factor | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | |
| Cap, veh/h | 522 | 523 | 1370 | 582 | 521 | 2661 | |
| Arrive On Green | 0.17 | 0.17 | 0.64 | 0.64 | 0.32 | 0.74 | |
| Sat Flow, veh/h | 3051 | 3060 | 3600 | 1530 | 1611 | 3600 | |
| Grp Volume(v), veh/h | 463 | 221 | 591 | 509 | 498 | 845 | |
| Grp Sat Flow(s),veh/h/ln | 1526 | 1530 | 1800 | 1530 | 1611 | 1800 | |
| Q Serve(g_s), s | 17.8 | 7.7 | 9.9 | 32.7 | 36.3 | 9.6 | |
| Cycle Q Clear(g_c), s | 17.8 | 7.7 | 9.9 | 32.7 | 36.3 | 9.6 | |
| Prop In Lane | 1.00 522 | 1.00 | 1270 | 1.00 | 1.00 521 | 2441 | |
| Lane Grp Cap(c), veh/h V/C Ratio(X) | 0.89 | 523 0.42 | 1370 0.43 | 582 0.87 | 0.96 | 2661 0.32 | |
| Avail Cap(c_a), veh/h | 613 | 615 | 1370 | 582 | 602 | 2661 | |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.67 | 1.67 | 1.00 | 1.00 | |
| Upstream Filter(I) | 1.00 | 1.00 | 1.07 | 1.07 | 1.00 | 1.00 | |
| Uniform Delay (d), s/veh | 48.6 | 44.5 | 15.3 | 19.5 | 39.7 | 5.3 | |
| Incr Delay (d2), s/veh | 12.1 | 0.2 | 1.0 | 16.6 | 23.4 | 0.3 | |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| %ile BackOfQ(50%),veh/ln | 8.4 | 3.3 | 5.0 | 16.1 | 19.6 | 4.8 | |
| LnGrp Delay(d),s/veh | 60.7 | 44.7 | 16.3 | 36.1 | 63.1 | 5.7 | |
| LnGrp LOS | E | D | В | D | E | A | |
| Approach Vol, veh/h | 684 | | 1100 | | | 1343 | |
| Approach Delay, s/veh | 55.5 | | 25.5 | | | 27.0 | |
| Approach LOS | E | | С | | | С | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 8 |
| Assigned Phs | 1 | 2 | | | | 6 | 8 |
| Phs Duration (G+Y+Rc), s | 43.0 | 51.1 | | | | 94.1 | 25.9 |
| Change Period (Y+Rc), s | * 4.2 | 5.4 | | | | 5.4 | 5.4 |
| Max Green Setting (Gmax), s | * 45 | 36.1 | | | | 85.1 | 24.1 |
| Max Q Clear Time (g_c+I1), s | 38.3 | 34.7 | | | | 11.6 | 19.8 |
| Green Ext Time (p_c), s | 0.5 | 0.6 | | | | 4.0 | 0.7 |
| Intersection Summary | | | | | | | |
| HCM 2010 Ctrl Delay | | | 32.7 | | | | |
| HCM 2010 LOS | | | С | | | | |
| Notes | | | | | | | |

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|------------------------------|-----|------|------|------|----------|------|------|----------|------|----------|------------|------|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | | | ሻ | | 7 | | ^ | 7 | | ∱ } | |
| Traffic Volume (veh/h) | 0 | 0 | 0 | 257 | 0 | 271 | 0 | 917 | 370 | 0 | 928 | 339 |
| Future Volume (veh/h) | 0 | 0 | 0 | 257 | 0 | 271 | 0 | 917 | 370 | 0 | 928 | 339 |
| Number | | | | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | | | | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | | | | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | | | | 1748 | 0 | 1782 | 0 | 1731 | 1651 | 0 | 1748 | 1800 |
| Adj Flow Rate, veh/h | | | | 271 | 0 | 193 | 0 | 965 | 0 | 0 | 977 | 357 |
| Adj No. of Lanes | | | | 1 | 0 | 1 | 0 | 2 | 1 | 0 | 2 | 0 |
| Peak Hour Factor | | | | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | | | | 3 | 0 | 1 | 0 | 4 | 9 | 0 | 3 | 3 |
| Cap, veh/h | | | | 325 | 0 | 315 | 0 | 2096 | 850 | 0 | 1484 | 538 |
| Arrive On Green | | | | 0.21 | 0.00 | 0.21 | 0.00 | 0.61 | 0.00 | 0.00 | 0.61 | 0.61 |
| Sat Flow, veh/h | | | | 1564 | 0 | 1515 | 0 | 3462 | 1404 | 0 | 2451 | 888 |
| Grp Volume(v), veh/h | | | | 271 | 0 | 193 | 0 | 965 | 0 | 0 | 694 | 640 |
| Grp Sat Flow(s), veh/h/ln | | | | 1564 | 0 | 1515 | 0 | 1731 | 1404 | 0 | 1748 | 1591 |
| Q Serve(g_s), s | | | | 10.0 | 0.0 | 6.9 | 0.0 | 9.1 | 0.0 | 0.0 | 15.6 | 15.9 |
| Cycle Q Clear(g_c), s | | | | 10.0 | 0.0 | 6.9 | 0.0 | 9.1 | 0.0 | 0.0 | 15.6 | 15.9 |
| Prop In Lane | | | | 1.00 | | 1.00 | 0.00 | | 1.00 | 0.00 | | 0.56 |
| Lane Grp Cap(c), veh/h | | | | 325 | 0 | 315 | 0 | 2096 | 850 | 0 | 1058 | 963 |
| V/C Ratio(X) | | | | 0.83 | 0.00 | 0.61 | 0.00 | 0.46 | 0.00 | 0.00 | 0.66 | 0.66 |
| Avail Cap(c_a), veh/h | | | | 527 | 0 | 510 | 0 | 2096 | 850 | 0 | 1058 | 963 |
| HCM Platoon Ratio | | | | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | | | | 1.00 | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | | | | 22.8 | 0.0 | 21.6 | 0.0 | 6.5 | 0.0 | 0.0 | 7.7 | 7.8 |
| Incr Delay (d2), s/veh | | | | 2.9 | 0.0 | 0.7 | 0.0 | 0.7 | 0.0 | 0.0 | 3.2 | 3.6 |
| Initial Q Delay(d3),s/veh | | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | | | | 4.5 | 0.0 | 3.0 | 0.0 | 4.5 | 0.0 | 0.0 | 8.3 | 7.7 |
| LnGrp Delay(d),s/veh | | | | 25.6 | 0.0 | 22.3 | 0.0 | 7.2 | 0.0 | 0.0 | 10.9 | 11.4 |
| LnGrp LOS | | | | С | | С | | Α | | | В | В |
| Approach Vol, veh/h | | | | | 464 | | | 965 | | | 1334 | |
| Approach Delay, s/veh | | | | | 24.2 | | | 7.2 | | | 11.2 | |
| Approach LOS | | | | | С | | | А | | | В | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | | 2 | | | | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | | 41.7 | | | | 41.7 | | 18.3 | | | | |
| Change Period (Y+Rc), s | | 5.4 | | | | 5.4 | | 5.8 | | | | |
| Max Green Setting (Gmax), s | | 28.6 | | | | 28.6 | | 20.2 | | | | |
| Max Q Clear Time (g_c+I1), s | | 11.1 | | | | 17.9 | | 12.0 | | | | |
| Green Ext Time (p_c), s | | 4.1 | | | | 4.5 | | 0.5 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 12.0 | | | | | | | | | |
| HCM 2010 LOS | | | В | | | | | | | | | |

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|---|------|--------------|-------------|-------------|----------|------------|-----------|--------------|--------------|----------|--------------|-------------|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | ሻ | | 7 | | | | | ^ | 7 | | ^ | 7 |
| Traffic Volume (veh/h) | 535 | 0 | 416 | 0 | 0 | 0 | 0 | 752 | 227 | 0 | 845 | 340 |
| Future Volume (veh/h) | 535 | 0 | 416 | 0 | 0 | 0 | 0 | 752 | 227 | 0 | 845 | 340 |
| Number | 7 | 4 | 14 | | | | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | | | | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | | | | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | | | | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1682 | 0 | 1765 | | | | 0 | 1714 | 1636 | 0 | 1765 | 1731 |
| Adj Flow Rate, veh/h | 557 | 0 | 293 | | | | 0 | 783 | 0 | 0 | 880 | 0 |
| Adj No. of Lanes | 1 | 0 | 1 | | | | 0 | 2 | 1 | 0 | 2 | 1 |
| Peak Hour Factor | 0.96 | 0.96 | 0.96 | | | | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 |
| Percent Heavy Veh, % | 7 | 0 | 2 | | | | 0 | 5 | 10 | 0 | 2 | 4 |
| Cap, veh/h | 595 | 0 | 593 | | | | 0 | 1433 | 581 | 0 | 1475 | 615 |
| Arrive On Green | 0.40 | 0.00 | 0.40 | | | | 0.00 | 0.42 | 0.00 | 0.00 | 0.84 | 0.00 |
| Sat Flow, veh/h | 1506 | 0 | 1500 | | | | 0 | 3429 | 1391 | 0 | 3529 | 1471 |
| Grp Volume(v), veh/h | 557 | 0 | 293 | | | | 0 | 783 | 0 | 0 | 880 | 0 |
| Grp Sat Flow(s), veh/h/ln | 1506 | 0 | 1500 | | | | 0 | 1714 | 1391 | 0 | 1765 | 1471 |
| Q Serve(g_s), s | 21.3 | 0.0 | 8.8 | | | | 0.0 | 10.3 | 0.0 | 0.0 | 4.9 | 0.0 |
| Cycle Q Clear(g_c), s | 21.3 | 0.0 | 8.8 | | | | 0.0 | 10.3 | 0.0 | 0.0 | 4.9 | 0.0 |
| Prop In Lane | 1.00 | 0 | 1.00 | | | | 0.00 | 1.400 | 1.00 | 0.00 | 1 475 | 1.00 |
| Lane Grp Cap(c), veh/h | 595 | 0 | 593 | | | | 0 | 1433 | 581 | 0 | 1475 | 615 |
| V/C Ratio(X) | 0.94 | 0.00 | 0.49 | | | | 0.00 | 0.55 | 0.00 | 0.00 | 0.60 | 0.00 |
| Avail Cap(c_a), veh/h | 633 | 1.00 | 630 1.00 | | | | 0 1.00 | 1433 1.00 | 581 | 1.00 | 1475 | 615 2.00 |
| HCM Platoon Ratio | 1.00 | 1.00 0.00 | 1.00 | | | | 0.00 | 1.00 | 1.00 0.00 | 0.00 | 2.00 1.00 | |
| Upstream Filter(I) Uniform Delay (d), s/veh | 17.4 | 0.00 | 13.6 | | | | 0.00 | 13.2 | 0.00 | 0.00 | 3.3 | 0.00 |
| Incr Delay (d2), s/veh | 20.2 | 0.0 | 0.2 | | | | 0.0 | 1.5 | 0.0 | 0.0 | 3.3 1.8 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.2 | | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 12.2 | 0.0 | 3.6 | | | | 0.0 | 5.2 | 0.0 | 0.0 | 2.3 | 0.0 |
| LnGrp Delay(d),s/veh | 37.6 | 0.0 | 13.9 | | | | 0.0 | 14.7 | 0.0 | 0.0 | 5.0 | 0.0 |
| LnGrp LOS | D | 0.0 | В | | | | 0.0 | В | 0.0 | 0.0 | Α. | 0.0 |
| Approach Vol, veh/h | | 850 | | | | | | 783 | | | 880 | |
| Approach Delay, s/veh | | 29.4 | | | | | | 14.7 | | | 5.0 | |
| Approach LOS | | C | | | | | | В | | | A A | |
| | 1 | | 2 | 4 | _ | , | 7 | | | | , , | |
| Timer | ļ | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | | 2 | | 4 | | 6 | | | | | | |
| Phs Duration (G+Y+Rc), s | | 30.5 | | 29.5 | | 30.5 | | | | | | |
| Change Period (Y+Rc), s | | 5.4 | | 5.8 | | 5.4 | | | | | | |
| Max Green Setting (Gmax), s | | 23.6 | | 25.2 | | 23.6 | | | | | | |
| Max Q Clear Time (g_c+l1), s Green Ext Time (p_c), s | | 12.3 2.7 | | 23.3 0.4 | | 6.9 3.6 | | | | | | |
| Intersection Summary | | 2.1 | | J. 1 | | 5.0 | | | | | | |
| HCM 2010 Ctrl Delay | | | 16.3 | | | | | | | | | |
| HCM 2010 LOS | | | В | | | | | | | | | |
| 110111 2010 200 | | | D | | | | | | | | | |

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| - | • | • | • | 7 | | |
| EBT | EBR | WBL | WBT | NBL | NBR | |
| ^ | 7 | ሻ | ተተተ | ሻ | 7 | |
| 1009 | 149 | 355 | 744 | 273 | 441 | |
| | 149 | | | | 441 | |
| | | 1 | 6 | | 18 | |
| 0 | | | 0 | | 0 | |
| | 0.99 | 1.00 | | 1.00 | 1.00 | |
| 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| 1765 | 1765 | 1765 | 1765 | 1765 | 1765 | |
| 1040 | 138 | 366 | 767 | 281 | 348 | |
| 2 | 1 | 1 | 3 | 1 | 1 | |
| 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | |
| 2 | 2 | 2 | 2 | 2 | 2 | |
| | 569 | 987 | 5779 | 405 | 385 | |
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| 12/17 | | | 5770 | | | |
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| | | 5.6 | 0.0 | | 45.1 | |
| С | В | Α | Α | С | D | |
| 1178 | | | 1133 | 629 | | |
| 19.8 | | | 1.8 | 35.8 | | |
| В | | | Α | D | | |
| 1 | 2 | 2 | 4 | E | 4 | |
| | | 3 | 4 | 5 | | |
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| 0.0 | 2.6 | | | | 3.8 | |
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| | | 16.2 | | | | 1 |
| | | 10.3 B | | | | |
| | | | | | | |
| | | | | | | |
| | 1009 1009 1009 2 0 1.00 1765 1040 2 0.97 2 1347 0.38 3529 1040 1765 15.5 15.5 15.5 1347 0.77 1347 1.00 1.00 16.3 4.3 0.0 8.3 20.6 C | 1009 149 1009 149 1009 149 2 12 0 0 0,99 1.00 1.00 1765 1765 1040 138 2 1 0.97 0.97 2 2 1347 569 0.38 0.38 3529 1492 1040 138 1765 1492 15.5 3.8 15.5 3.8 15.5 3.8 1.00 1347 569 0.77 0.24 1347 569 0.77 0.24 1347 569 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.01 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.01 1.00 1 | 1009 149 355 1009 149 355 1009 149 355 2 12 1 0 0 0 0 0.99 1.00 1.00 1.00 1.00 1765 1765 1765 1040 138 366 2 1 1 0.97 0.97 0.97 2 2 2 2 1347 569 987 0.38 0.38 0.63 3529 1492 1580 1040 138 366 1765 1492 1580 15.5 3.8 6.8 15.5 3.8 6.8 1.00 1.00 1347 569 987 0.77 0.24 0.37 1347 569 987 0.77 0.24 0.37 1347 569 987 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 | 1009 149 355 744 1009 149 355 744 1009 149 355 744 2 12 1 6 0 0 0 0 0 0.99 1.00 1.00 1.00 1.00 1.00 1765 1765 1765 1765 1040 138 366 767 2 1 1 3 0.97 0.97 0.97 0.97 2 2 2 2 2 1347 569 987 5779 0.38 0.38 0.63 1.00 3529 1492 1580 5294 1040 138 366 767 1765 1492 1580 5294 1040 138 366 767 1765 1492 1580 1765 15.5 3.8 6.8 0.0 1.00 1.00 1347 569 987 5779 0.77 0.24 0.37 0.13 1347 569 987 5779 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 | 1009 | 1009 |

| Intersection | | | | | | |
|------------------------|-------|-------|--------|------|--------|-------|
| Int Delay, s/veh | 2.1 | | | | | |
| | | EDD | MOL | MOT | ND | NIDD |
| | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | ₽ | | | 4 | W | |
| Traffic Vol, veh/h | 67 | 106 | 0 | 160 | 79 | 0 |
| Future Vol, veh/h | 67 | 106 | 0 | 160 | 79 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| 3 | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, | # 0 | - | - | 0 | 0 | = |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 73 | 115 | 0 | 174 | 86 | 0 |
| | | | | | | |
| N A = 1 = 1/N A1 = = 1 | . ! 4 | | 4-1-0 | | \ A! 4 | |
| | ajor1 | | Major2 | | Minor1 | |
| Conflicting Flow All | 0 | 0 | 188 | 0 | 305 | 131 |
| Stage 1 | - | - | - | - | 131 | - |
| Stage 2 | - | - | - | - | 174 | - |
| Critical Hdwy | - | - | 4.12 | - | 6.42 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 | - |
| Follow-up Hdwy | - | - | 2.218 | - | 3.518 | 3.318 |
| Pot Cap-1 Maneuver | - | - | 1386 | - | 687 | 919 |
| Stage 1 | - | - | - | - | 895 | - |
| Stage 2 | - | - | - | - | 856 | - |
| Platoon blocked, % | - | - | | - | | |
| Mov Cap-1 Maneuver | - | - | 1386 | - | 687 | 919 |
| Mov Cap-2 Maneuver | - | - | - | - | 687 | - |
| Stage 1 | - | - | - | - | 895 | - |
| Stage 2 | _ | _ | _ | _ | 856 | _ |
| Jiage Z | | | | | 000 | |
| | | | | | | |
| Approach | EB | | WB | | NB | |
| HCM Control Delay, s | 0 | | 0 | | 11 | |
| HCM LOS | | | | | В | |
| | | | | | | |
| Minor Lane/Major Mvmt | I | NBLn1 | EBT | EBR | WBL | WBT |
| Capacity (veh/h) | | 687 | _ | | 1386 | |
| HCM Lane V/C Ratio | | 0.125 | _ | _ | - | _ |
| HCM Control Delay (s) | | 11 | - | - | 0 | _ |
| HCM Lane LOS | | В | _ | _ | A | _ |
| HCM 95th %tile Q(veh) | | 0.4 | _ | | 0 | |
| HOW FOUT FOUTE Q(VEH) | | 0.4 | _ | - | U | - |

| Intersection | | | | | | |
|---|-------|--------------|--------|------|---------|------|
| Int Delay, s/veh | 1.8 | | | | | |
| | | EDD | MDI | MOT | ND | NDD |
| | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | Þ | | | र्स | ¥ | |
| Traffic Vol, veh/h | 12 | 55 | 0 | 117 | 43 | 0 |
| Future Vol, veh/h | 12 | 55 | 0 | 117 | 43 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | _ 0 | 0 | 0 |
| 3 | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | # 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 13 | 60 | 0 | 127 | 47 | 0 |
| | | | | | | |
| Major/Minor | nior1 | | Majora | | \linc=1 | |
| | ajor1 | | Major2 | | Minor1 | |
| Conflicting Flow All | 0 | 0 | 73 | 0 | 170 | 43 |
| Stage 1 | - | - | - | - | 43 | - |
| Stage 2 | - | - | - | - | 127 | - |
| Critical Hdwy | - | - | 4.12 | - | 6.42 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 | - |
| Follow-up Hdwy | - | - | 2.218 | - | 3.518 | |
| Pot Cap-1 Maneuver | - | - | 1527 | - | 820 | 1027 |
| Stage 1 | - | - | - | - | 979 | - |
| Stage 2 | - | - | - | - | 899 | - |
| Platoon blocked, % | - | - | | - | | |
| Mov Cap-1 Maneuver | - | - | 1527 | - | 820 | 1027 |
| Mov Cap-2 Maneuver | - | - | - | - | 820 | - |
| Stage 1 | - | - | - | - | 979 | - |
| Stage 2 | - | _ | _ | _ | 899 | - |
| J | | | | | 3,, | |
| | | | | | | |
| Approach | EB | | WB | | NB | |
| HCM Control Delay, s | 0 | | 0 | | 9.7 | |
| HCM LOS | | | | | Α | |
| | | | | | | |
| | N | NBLn1 | EBT | EBR | WBL | WBT |
| Minor Lane/Maior Mymt | | VOLITI | LDI | | 1527 | |
| Minor Lane/Major Mvmt | | 020 | | | | - |
| Capacity (veh/h) | | 820 | - | - | | |
| Capacity (veh/h) HCM Lane V/C Ratio | | 0.057 | - | - | - | - |
| Capacity (veh/h) HCM Lane V/C Ratio HCM Control Delay (s) | | 0.057 9.7 | - | - | 0 | - |
| Capacity (veh/h) HCM Lane V/C Ratio | | 0.057 | - | - | - | |

| | ᄼ | → | • | • | — | • | 1 | † | ~ | / | | 4 |
|------------------------------|------|----------|------|------|------------|------|------|----------|------|----------|----------|------|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | 7 | ^ | 7 | ሻሻ | ∱ β | | | 4 | 7 | 7 | ₽ | |
| Traffic Volume (veh/h) | 48 | 1330 | 71 | 525 | 1005 | 86 | 74 | 4 | 435 | 56 | 7 | 22 |
| Future Volume (veh/h) | 48 | 1330 | 71 | 525 | 1005 | 86 | 74 | 4 | 435 | 56 | 7 | 22 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 3 | 8 | 18 | 7 | 4 | 14 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1765 | 1765 | 1765 | 1765 | 1765 | 1800 | 1800 | 1765 | 1765 | 1765 | 1765 | 1800 |
| Adj Flow Rate, veh/h | 50 | 1385 | 68 | 547 | 1047 | 56 | 77 | 4 | 383 | 58 | 7 | 20 |
| Adj No. of Lanes | 1 | 2 | 1 | 2 | 2 | 0 | 0 | 1 | 1 | 1 | 1 | 0 |
| Peak Hour Factor | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 61 | 1384 | 588 | 1008 | 2322 | 124 | 437 | 21 | 435 | 290 | 117 | 334 |
| Arrive On Green | 0.04 | 0.39 | 0.39 | 0.34 | 0.70 | 0.70 | 0.29 | 0.29 | 0.29 | 0.29 | 0.29 | 0.29 |
| Sat Flow, veh/h | 1580 | 3529 | 1499 | 2992 | 3321 | 178 | 1263 | 72 | 1500 | 933 | 404 | 1153 |
| Grp Volume(v), veh/h | 50 | 1385 | 68 | 547 | 556 | 547 | 81 | 0 | 383 | 58 | 0 | 27 |
| Grp Sat Flow(s),veh/h/ln | 1580 | 1765 | 1499 | 1496 | 1765 | 1733 | 1335 | 0 | 1500 | 933 | 0 | 1557 |
| Q Serve(g_s), s | 3.1 | 39.2 | 2.9 | 14.8 | 13.8 | 13.9 | 4.3 | 0.0 | 24.3 | 5.1 | 0.0 | 1.3 |
| Cycle Q Clear(g_c), s | 3.1 | 39.2 | 2.9 | 14.8 | 13.8 | 13.9 | 5.6 | 0.0 | 24.3 | 10.7 | 0.0 | 1.3 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.10 | 0.95 | _ | 1.00 | 1.00 | _ | 0.74 |
| Lane Grp Cap(c), veh/h | 61 | 1384 | 588 | 1008 | 1234 | 1212 | 457 | 0 | 435 | 290 | 0 | 452 |
| V/C Ratio(X) | 0.82 | 1.00 | 0.12 | 0.54 | 0.45 | 0.45 | 0.18 | 0.00 | 0.88 | 0.20 | 0.00 | 0.06 |
| Avail Cap(c_a), veh/h | 123 | 1384 | 588 | 1008 | 1234 | 1212 | 457 | 0 | 435 | 290 | 0 | 452 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 0.58 | 0.58 | 0.58 | 0.84 | 0.84 | 0.84 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 47.7 | 30.4 | 19.4 | 26.9 | 6.6 | 6.6 | 27.6 | 0.0 | 33.8 | 31.3 | 0.0 | 25.7 |
| Incr Delay (d2), s/veh | 5.8 | 18.6 | 0.2 | 0.3 | 1.0 | 1.0 | 0.8 | 0.0 | 21.7 | 1.5 | 0.0 | 0.3 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.5 | 22.6 | 1.2 | 6.2 | 7.0 | 6.9 | 1.8 | 0.0 | 12.7 | 1.4 | 0.0 | 0.6 |
| LnGrp Delay(d),s/veh | 53.5 | 49.0 | 19.6 | 27.2 | 7.6 | 7.6 | 28.4 | 0.0 | 55.6 | 32.8 | 0.0 | 25.9 |
| LnGrp LOS | D | F | В | С | Α | A | С | | E | С | | С |
| Approach Vol, veh/h | | 1503 | | | 1650 | | | 464 | | | 85 | |
| Approach Delay, s/veh | | 47.8 | | | 14.1 | | | 50.8 | | | 30.6 | |
| Approach LOS | | D | | | В | | | D | | | С | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 38.8 | 44.3 | | 33.6 | 8.1 | 75.0 | | 33.6 | | | | |
| Change Period (Y+Rc), s | 5.1 | * 5.1 | | 4.6 | * 4.2 | 5.1 | | 4.6 | | | | |
| Max Green Setting (Gmax), s | 17.9 | * 39 | | 29.0 | * 7.8 | 49.3 | | 29.0 | | | | |
| Max Q Clear Time (g_c+l1), s | 16.8 | 41.2 | | 12.7 | 5.1 | 15.9 | | 26.3 | | | | |
| Green Ext Time (p_c), s | 0.2 | 0.0 | | 0.2 | 0.0 | 5.1 | | 0.4 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 32.8 | | | | | | | | | |
| HCM 2010 LOS | | | С | | | | | | | | | |
| Notes | | | | | | | | | | | | |

| | <u> </u> | | _ | _ | ← | • | • | † | * | | 1 | 7 |
|-------------------------------|----------|------|----------|-------------|-------------------|-------|------|----------|----------|-------------|-----------------|----------|
| Mayamant | | | ▼ | WDI | WDT | WDD | NDI. | I NDT | / NDD | CDI | CDT | CDD |
| Movement Lane Configurations | EBL | EBT | EBR | WBL ሻሻ | WBT ↑ ↑ | WBR | NBL | NBT | NBR | SBL | SBT ♣ | SBR ř |
| Traffic Volume (veh/h) | 0 | 1328 | 492 | 878 | 1436 | 0 | 0 | 0 | 0 | 276 | 0 | 176 |
| Future Volume (veh/h) | 0 | 1328 | 492 | 878 | 1436 | 0 | 0 | 0 | 0 | 276 | 0 | 176 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | U | U | U | 7 | 4 | 170 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | | | | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | U | 0.99 | 1.00 | U | 1.00 | | | | 1.00 | U | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 0 | 1714 | 1731 | 1731 | 1782 | 0 | | | | 1731 | 1727 | 1714 |
| Adj Flow Rate, veh/h | 0 | 1355 | 421 | 896 | 1465 | 0 | | | | 325 | 0 | 91 |
| Adj No. of Lanes | 0 | 2 | 1 | 2 | 2 | 0 | | | | 2 | 0 | 1 |
| Peak Hour Factor | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | | | | 0.98 | 0.98 | 0.98 |
| Percent Heavy Veh, % | 0.70 | 5 | 4 | 4 | 0.70 | 0.70 | | | | 4 | 0.70 | 5 |
| Cap, veh/h | 0 | 1536 | 650 | 942 | 2866 | 0 | | | | 379 | 0 | 168 |
| Arrive On Green | 0.00 | 0.45 | 0.45 | 0.32 | 0.80 | 0.00 | | | | 0.12 | 0.00 | 0.12 |
| Sat Flow, veh/h | 0.00 | 3429 | 1451 | 2934 | 3564 | 0.00 | | | | 3297 | 0.00 | 1457 |
| | 0 | 1355 | 421 | | 1465 | 0 | | | | 325 | 0 | 91 |
| Grp Volume(v), veh/h | 0 | 1714 | 1451 | 896 1467 | 1782 | | | | | 323 1648 | | 1457 |
| Grp Sat Flow(s), veh/h/ln | 0.0 | 43.3 | 27.1 | 35.8 | 16.4 | 0.0 | | | | 11.6 | 0.0 | 7.1 |
| Q Serve(g_s), s | | | | | | | | | | | | |
| Cycle Q Clear(g_c), s | 0.0 | 43.3 | 27.1 | 35.8 | 16.4 | 0.0 | | | | 11.6 | 0.0 | 7.1 |
| Prop In Lane | 0.00 | 152/ | 1.00 | 1.00 | 20// | 0.00 | | | | 1.00 | 0 | 1.00 |
| Lane Grp Cap(c), veh/h | 0 | 1536 | 650 | 942 | 2866 | 0 | | | | 379 | 0 | 168 |
| V/C Ratio(X) | 0.00 | 0.88 | 0.65 | 0.95 | 0.51 | 0.00 | | | | 0.86 | 0.00 | 0.54 |
| Avail Cap(c_a), veh/h | 0 | 1536 | 650 | 990 | 2866 | 1.00 | | | | 426 | 1.00 | 188 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 0.00 | 0.33 | 0.33 | 0.09 | 0.09 | 0.00 | | | | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 0.0 | 30.2 | 25.8 | 39.8 | 3.9 | 0.0 | | | | 52.1 | 0.0 | 50.1 |
| Incr Delay (d2), s/veh | 0.0 | 2.7 | 1.7 | 2.5 | 0.1 | 0.0 | | | | 13.3 | 0.0 | 1.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.0 | 20.9 | 11.1 | 14.8 | 8.0 | 0.0 | | | | 6.0 | 0.0 | 2.9 |
| LnGrp Delay(d),s/veh | 0.0 | 33.0 | 27.4 | 42.3 | 4.0 | 0.0 | | | | 65.4 | 0.0 | 51.1 |
| LnGrp LOS | | C | С | D | A | | | | | E | 447 | D |
| Approach Vol, veh/h | | 1776 | | | 2361 | | | | | | 416 | |
| Approach Delay, s/veh | | 31.6 | | | 18.5 | | | | | | 62.3 | |
| Approach LOS | | С | | | В | | | | | | Е | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | | 6 | | | | | | |
| Phs Duration (G+Y+Rc), s | 42.7 | 58.9 | | 18.4 | | 101.6 | | | | | | |
| Change Period (Y+Rc), s | * 4.2 | 5.1 | | 4.6 | | 5.1 | | | | | | |
| Max Green Setting (Gmax), s | * 41 | 50.1 | | 15.5 | | 94.8 | | | | | | |
| Max Q Clear Time (g_c+I1), s | 37.8 | 45.3 | | 13.6 | | 18.4 | | | | | | |
| Green Ext Time (p_c), s | 0.7 | 3.2 | | 0.2 | | 9.9 | | | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 27.6 | | | | | | | | | |
| HCM 2010 LOS | | | С | | | | | | | | | |
| Notes | | | | | | | | | | | | |

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|------------------------------|------|----------|------|------|----------|-------|------|----------|-------------|----------|--------------|-----|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | 1,1 | ^ | | | ^ | 7 | ሻ | 4 | 7 | | | |
| Traffic Volume (veh/h) | 179 | 1425 | 0 | 0 | 1942 | 243 | 372 | 135 | 820 | 0 | 0 | 0 |
| Future Volume (veh/h) | 179 | 1425 | 0 | 0 | 1942 | 243 | 372 | 135 | 820 | 0 | 0 | 0 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 3 | 8 | 18 | | | |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | | | |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | |
| Adj Sat Flow, veh/h/ln | 1765 | 1714 | 0 | 0 | 1765 | 1667 | 1765 | 1707 | 1698 | | | |
| Adj Flow Rate, veh/h | 186 | 1484 | 0 | 0 | 2023 | 205 | 306 | 441 | 421 | | | |
| Adj No. of Lanes | 2 | 2 | 0 | 0 | 2 | 1 | 1 | 1 | 1 | | | |
| Peak Hour Factor | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | | | |
| Percent Heavy Veh, % | 2 | 5 | 0 | 0 | 2 | 8 | 2 | 5 | 6 | | | |
| Cap, veh/h | 631 | 2694 | 0 | 0 | 1879 | 754 | 482 | 489 | 412 | | | |
| Arrive On Green | 0.42 | 1.00 | 0.00 | 0.00 | 0.53 | 0.53 | 0.29 | 0.29 | 0.29 | | | |
| Sat Flow, veh/h | 2992 | 3429 | 0 | 0 | 3529 | 1417 | 1681 | 1707 | 1437 | | | |
| Grp Volume(v), veh/h | 186 | 1484 | 0 | 0 | 2023 | 205 | 306 | 441 | 421 | | | |
| Grp Sat Flow(s), veh/h/ln | 1496 | 1714 | 0 | 0 | 1765 | 1417 | 1681 | 1707 | 1437 | | | |
| Q Serve(g_s), s | 4.9 | 0.0 | 0.0 | 0.0 | 63.9 | 9.5 | 19.1 | 29.8 | 34.4 | | | |
| Cycle Q Clear(g_c), s | 4.9 | 0.0 | 0.0 | 0.0 | 63.9 | 9.5 | 19.1 | 29.8 | 34.4 | | | |
| Prop In Lane | 1.00 | | 0.00 | 0.00 | | 1.00 | 1.00 | | 1.00 | | | |
| Lane Grp Cap(c), veh/h | 631 | 2694 | 0 | 0 | 1879 | 754 | 482 | 489 | 412 | | | |
| V/C Ratio(X) | 0.29 | 0.55 | 0.00 | 0.00 | 1.08 | 0.27 | 0.64 | 0.90 | 1.02 | | | |
| Avail Cap(c_a), veh/h | 631 | 2694 | 0 | 0 | 1879 | 754 | 482 | 489 | 412 | | | |
| HCM Platoon Ratio | 2.00 | 2.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | |
| Upstream Filter(I) | 0.32 | 0.32 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | |
| Uniform Delay (d), s/veh | 28.8 | 0.0 | 0.0 | 0.0 | 28.0 | 15.3 | 37.3 | 41.2 | 42.8 | | | |
| Incr Delay (d2), s/veh | 0.0 | 0.3 | 0.0 | 0.0 | 44.7 | 0.9 | 2.1 | 19.2 | 50.0 | | | |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | |
| %ile BackOfQ(50%),veh/ln | 2.0 | 0.1 | 0.0 | 0.0 | 42.5 | 3.9 | 9.1 | 16.7 | 19.3 | | | |
| LnGrp Delay(d),s/veh | 28.8 | 0.3 | 0.0 | 0.0 | 72.8 | 16.2 | 39.4 | 60.3 | 92.8 | | | |
| LnGrp LOS | С | Α | | | F | В | D | <u>E</u> | F | | | |
| Approach Vol, veh/h | | 1670 | | | 2228 | | | 1168 | | | | |
| Approach Delay, s/veh | | 3.4 | | | 67.6 | | | 66.6 | | | | |
| Approach LOS | | Α | | | E | | | E | | | | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | | 2 | | | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | | 99.4 | | | 30.4 | 69.0 | | 39.0 | | | | |
| Change Period (Y+Rc), s | | 5.1 | | | 5.1 | * 5.1 | | 4.6 | | | | |
| Max Green Setting (Gmax), s | | 75.9 | | | 7.8 | * 64 | | 34.4 | | | | |
| Max Q Clear Time (g_c+I1), s | | 2.0 | | | 6.9 | 65.9 | | 36.4 | | | | |
| Green Ext Time (p_c), s | | 10.2 | | | 0.0 | 0.0 | | 0.0 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 46.2 | | | | | | | | | |
| HCM 2010 LOS | | | D | | | | | | | | | |
| Notes | | | | | | | | | | | | |

ATTACHMENT D

OPENING YEAR CUMULATIVE (2020) WITH PROJECT FREEWAY OFF-RAMP QUEUING
ANALYSIS WORKSHEETS



| | 1 | * | † | | ļ |
|-------------------------|------|------|----------|------|------|
| Lane Group | WBL | WBR | NBT | NBR | SBT |
| Lane Group Flow (vph) | 166 | 212 | 1376 | 891 | 1862 |
| v/c Ratio | 0.54 | 0.66 | 0.63 | 0.72 | 0.85 |
| Control Delay | 28.0 | 27.6 | 2.9 | 2.7 | 12.6 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 28.0 | 27.6 | 2.9 | 2.7 | 12.6 |
| Queue Length 50th (ft) | 58 | 56 | 50 | 0 | 162 |
| Queue Length 95th (ft) | 107 | 113 | m53 | m0 | #397 |
| Internal Link Dist (ft) | | | 112 | | 96 |
| Turn Bay Length (ft) | | 1000 | | | |
| Base Capacity (vph) | 369 | 375 | 2169 | 1246 | 2186 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.45 | 0.57 | 0.63 | 0.72 | 0.85 |

Intersection Summary

^{# 95}th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

| | • | • | † | - | ↓ | 1 |
|-------------------------|------|------|----------|------|----------|------|
| Lane Group | EBL | EBR | NBT | NBR | SBT | SBR |
| Lane Group Flow (vph) | 357 | 369 | 1936 | 538 | 1091 | 185 |
| v/c Ratio | 0.91 | 0.84 | 0.98 | 0.36 | 0.57 | 0.14 |
| Control Delay | 52.9 | 36.6 | 32.3 | 0.7 | 12.1 | 0.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 52.9 | 36.6 | 32.3 | 0.7 | 12.1 | 0.1 |
| Queue Length 50th (ft) | 130 | 100 | 315 | 0 | 122 | 0 |
| Queue Length 95th (ft) | #277 | #235 | #498 | 0 | m187 | m0 |
| Internal Link Dist (ft) | | | 135 | | 136 | |
| Turn Bay Length (ft) | | 915 | | | | |
| Base Capacity (vph) | 405 | 452 | 1969 | 1485 | 1913 | 1367 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.88 | 0.82 | 0.98 | 0.36 | 0.57 | 0.14 |

Intersection Summary

^{# 95}th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

| | | _ | | _ | |
|-----|------|----|----|--------|-----|
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|-------------------------|------|------|------|------|------|----------|------|
| Lane Group | EBT | EBR | WBL | WBT | SBL | SBT | SBR |
| Lane Group Flow (vph) | 882 | 207 | 597 | 1730 | 152 | 148 | 138 |
| v/c Ratio | 0.52 | 0.26 | 0.85 | 0.65 | 0.74 | 0.65 | 0.55 |
| Control Delay | 23.5 | 3.9 | 52.9 | 1.1 | 69.5 | 56.9 | 35.4 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.4 | 0.0 | 0.0 | 0.0 |
| Total Delay | 23.5 | 3.9 | 52.9 | 1.5 | 69.5 | 56.9 | 35.4 |
| Queue Length 50th (ft) | 223 | 0 | 258 | 42 | 121 | 100 | 58 |
| Queue Length 95th (ft) | 349 | 48 | m221 | m82 | 189 | 161 | 118 |
| Internal Link Dist (ft) | 609 | | | 506 | | 1275 | |
| Turn Bay Length (ft) | | | 200 | | | | 360 |
| Base Capacity (vph) | 1686 | 797 | 880 | 2679 | 292 | 317 | 332 |
| Starvation Cap Reductn | 0 | 0 | 0 | 392 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.52 | 0.26 | 0.68 | 0.76 | 0.52 | 0.47 | 0.42 |
| Intersection Summary | | | | | | | |

m Volume for 95th percentile queue is metered by upstream signal.

| | • | - | • | • | 4 | † | - |
|-------------------------|-------|------|------|------|------|----------|-------|
| Lane Group | EBL | EBT | WBT | WBR | NBL | NBT | NBR |
| Lane Group Flow (vph) | 173 | 1014 | 1804 | 383 | 559 | 689 | 666 |
| v/c Ratio | 1.28 | 0.53 | 1.05 | 0.45 | 1.06 | 1.16 | 1.11 |
| Control Delay | 207.7 | 12.6 | 68.3 | 7.0 | 94.2 | 120.9 | 103.9 |
| Queue Delay | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 207.7 | 12.7 | 68.3 | 7.0 | 94.2 | 120.9 | 103.9 |
| Queue Length 50th (ft) | ~96 | 131 | ~764 | 43 | ~505 | ~577 | ~536 |
| Queue Length 95th (ft) | #173 | 160 | #896 | 114 | #739 | #813 | #770 |
| Internal Link Dist (ft) | | 506 | 361 | | | 1432 | |
| Turn Bay Length (ft) | 200 | | | | | | 120 |
| Base Capacity (vph) | 135 | 1931 | 1710 | 853 | 528 | 594 | 598 |
| Starvation Cap Reductn | 0 | 98 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 1.28 | 0.55 | 1.05 | 0.45 | 1.06 | 1.16 | 1.11 |
| | | | | | | | |

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

^{# 95}th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

| | • | • | † | / | ļ |
|-------------------------|------|------|----------|----------|------|
| Lane Group | WBL | WBR | NBT | NBR | SBT |
| Lane Group Flow (vph) | 271 | 285 | 965 | 389 | 1334 |
| v/c Ratio | 0.70 | 0.66 | 0.49 | 0.40 | 0.68 |
| Control Delay | 29.9 | 22.0 | 14.5 | 6.7 | 11.5 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 29.9 | 22.0 | 14.5 | 6.7 | 11.5 |
| Queue Length 50th (ft) | 94 | 67 | 120 | 35 | 134 |
| Queue Length 95th (ft) | 150 | 122 | m190 | m69 | 248 |
| Internal Link Dist (ft) | | | 112 | | 96 |
| Turn Bay Length (ft) | | 1000 | | | |
| Base Capacity (vph) | 525 | 558 | 1955 | 962 | 1953 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.52 | 0.51 | 0.49 | 0.40 | 0.68 |
| Intersection Summary | | | | | |

m Volume for 95th percentile queue is metered by upstream signal.

| | • | • | † | / | ↓ | 1 |
|-------------------------|------|------|----------|------|----------|------|
| Lane Group | EBL | EBR | NBT | NBR | SBT | SBR |
| Lane Group Flow (vph) | 557 | 433 | 783 | 236 | 880 | 354 |
| v/c Ratio | 0.93 | 0.69 | 0.55 | 0.17 | 0.60 | 0.25 |
| Control Delay | 42.0 | 19.1 | 15.7 | 0.3 | 12.3 | 0.3 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 42.0 | 19.1 | 15.7 | 0.3 | 12.3 | 0.3 |
| Queue Length 50th (ft) | 188 | 104 | 107 | 0 | 115 | 0 |
| Queue Length 95th (ft) | #377 | 194 | 155 | 0 | 106 | m0 |
| Internal Link Dist (ft) | | | 135 | | 136 | |
| Turn Bay Length (ft) | | 915 | | | | |
| Base Capacity (vph) | 630 | 660 | 1414 | 1391 | 1456 | 1440 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.88 | 0.66 | 0.55 | 0.17 | 0.60 | 0.25 |

Intersection Summary

^{# 95}th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

| | - | • | • | ← | \ | ↓ | 4 |
|-------------------------|------|------|----------|------|----------|----------|------|
| Lane Group | EBT | EBR | • WBL | WBT | SBL | SBT | SBR |
| Lane Group Flow (vph) | 1355 | 502 | 896 | 1465 | 161 | 157 | 144 |
| v/c Ratio | 0.90 | 0.62 | 0.94 | 0.52 | 0.86 | 0.64 | 0.56 |
| Control Delay | 41.6 | 12.6 | 56.5 | 3.3 | 88.8 | 44.0 | 28.0 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.3 | 0.0 | 0.0 | 0.0 |
| Total Delay | 41.6 | 12.6 | 56.5 | 3.6 | 88.8 | 44.0 | 28.0 |
| Queue Length 50th (ft) | 497 | 101 | 414 | 91 | 130 | 73 | 36 |
| Queue Length 95th (ft) | #646 | 221 | m385 | m87 | #254 | 147 | 104 |
| Internal Link Dist (ft) | 609 | | | 506 | | 1275 | |
| Turn Bay Length (ft) | | | 200 | | | | 360 |
| Base Capacity (vph) | 1501 | 816 | 987 | 2842 | 199 | 257 | 269 |
| Starvation Cap Reductn | 0 | 0 | 0 | 669 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.90 | 0.62 | 0.91 | 0.67 | 0.81 | 0.61 | 0.54 |

Intersection Summary

^{# 95}th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

| | • | → | ← | • | 4 | † | - |
|-------------------------|-------|----------|----------|------|------|----------|-------|
| Lane Group | EBL | EBT | WBT | WBR | NBL | NBT | NBR |
| Lane Group Flow (vph) | 186 | 1484 | 2023 | 253 | 349 | 530 | 504 |
| v/c Ratio | 0.96 | 0.68 | 1.08 | 0.30 | 0.77 | 1.13 | 1.11 |
| Control Delay | 78.0 | 6.8 | 73.1 | 5.8 | 52.3 | 120.4 | 111.9 |
| Queue Delay | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 78.0 | 6.9 | 73.1 | 5.8 | 52.3 | 120.4 | 111.9 |
| Queue Length 50th (ft) | 83 | 99 | ~873 | 28 | 263 | ~451 | ~410 |
| Queue Length 95th (ft) | m#106 | m114 | #1003 | 74 | #409 | #669 | #624 |
| Internal Link Dist (ft) | | 506 | 361 | | | 1432 | |
| Turn Bay Length (ft) | 200 | | | | | | 120 |
| Base Capacity (vph) | 193 | 2168 | 1879 | 836 | 451 | 467 | 453 |
| Starvation Cap Reductn | 0 | 106 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.96 | 0.72 | 1.08 | 0.30 | 0.77 | 1.13 | 1.11 |

Intersection Summary

Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.

^{# 95}th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

ATTACHMENT E

HORIZON YEAR (2040) WITH PROJECT HCM ANALYSIS WORKSHEETS



| | • | • | <u></u> | <i>></i> | <u> </u> | | |
|--|--------------|-------------|--------------|--------------|--------------|-------------|------|
| Movement | WBL | WBR | NBT | NBR | SBL | SBT | |
| Lane Configurations | ሻሻ | 77 | ^ | 7 | * | ^ | |
| Traffic Volume (veh/h) | 1064 | 689 | 965 | 615 | 358 | 1179 | |
| Future Volume (veh/h) | 1064 | 689 | 965 | 615 | 358 | 1179 | |
| Number | 3 | 18 | 2 | 12 | 1 | 6 | |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | |
| Ped-Bike Adj(A_pbT) | 1.00 | 1.00 | | 0.99 | 1.00 | | |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| Adj Sat Flow, veh/h/ln | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | |
| Adj Flow Rate, veh/h | 1157 | 494 | 1049 | 486 | 389 | 1282 | |
| Adj No. of Lanes | 2 | 2 | 2 | 1 | 1 | 2 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | |
| Cap, veh/h | 1083 | 1086 | 1068 | 451 | 620 | 2615 | |
| Arrive On Green | 0.35 | 0.35 | 0.30 | 0.30 | 0.38 | 0.73 | |
| Sat Flow, veh/h | 3051 | 3060 | 3600 | 1520 | 1611 | 3600 | |
| Grp Volume(v), veh/h | 1157 | 494 | 1049 | 486 | 389 | 1282 | |
| Grp Sat Flow(s),veh/h/ln | 1526 | 1530 | 1800 | 1520 | 1611 | 1800 | |
| Q Serve(g_s), s | 42.6 | 14.9 | 34.7 | 35.6 | 23.5 | 18.2 | |
| Cycle Q Clear(g_c), s | 42.6 | 14.9 | 34.7 | 35.6 | 23.5 | 18.2 | |
| Prop In Lane | 1.00 | 1.00 | 10/0 | 1.00 | 1.00 | 0/45 | |
| Lane Grp Cap(c), veh/h | 1083 | 1086 | 1068 | 451 | 620 | 2615 | |
| V/C Ratio(X) | 1.07 | 0.45 | 0.98 | 1.08 | 0.63 | 0.49 | |
| Avail Cap(c_a), veh/h | 1083 | 1086 | 1068 | 451 | 620 | 2615 | |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 41.9 | 1.00 42.2 | 1.00 29.9 | 1.00 7.0 | |
| Uniform Delay (d), s/veh Incr Delay (d2), s/veh | 38.7 47.5 | 29.8 0.1 | 23.6 | 42.2 64.9 | 1.5 | 0.7 | |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| %ile BackOfQ(50%),veh/ln | 25.0 | 6.3 | 20.7 | 23.0 | 10.7 | 9.1 | |
| LnGrp Delay(d),s/veh | 86.2 | 29.9 | 65.5 | 107.1 | 31.5 | 7.6 | |
| LnGrp LOS | 60.2 F | 27.7 C | 05.5 E | F | 31.5 C | 7.0 A | |
| Approach Vol, veh/h | 1651 | <u> </u> | 1535 | ' | U | 1671 | |
| Approach Delay, s/veh | 69.3 | | 78.7 | | | 13.2 | |
| Approach LOS | 67.3 E | | 70.7 E | | | 13.2 B | |
| • | | | | | | | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 8 |
| Assigned Phs | 1 | 2 | | | | 6 | 8 |
| Phs Duration (G+Y+Rc), s | 51.6 | 41.0 | | | | 92.6 | 48.0 |
| Change Period (Y+Rc), s | 5.4 | * 5.4 | | | | 5.4 | 5.4 |
| Max Green Setting (Gmax), s | 26.8 | * 36 | | | | 66.6 | 42.6 |
| Max Q Clear Time (g_c+l1), s | 25.5 | 37.6 | | | | 20.2 | 44.6 |
| Green Ext Time (p_c), s | 0.1 | 0.0 | | | | 7.2 | 0.0 |
| ntersection Summary | | | | | | | |
| HCM 2010 Ctrl Delay | | | 53.0 | | | | |
| HCM 2010 LOS | | | D | | | | |
| Notes | | | | | | | |

| | • | → | `* | √ | ← | • | • | † | / | > | | √ |
|------------------------------|-----|----------|------|----------|----------|------|------|----------|----------|-------------|------------|----------|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | | | * | | 7 | | ^ | 7 | | ∱ } | |
| Traffic Volume (veh/h) | 0 | 0 | 0 | 228 | 0 | 212 | 0 | 1368 | 930 | 0 | 1249 | 995 |
| Future Volume (veh/h) | 0 | 0 | 0 | 228 | 0 | 212 | 0 | 1368 | 930 | 0 | 1249 | 995 |
| Number | | | | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | | | | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | | | | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | | | | 1748 | 0 | 1698 | 0 | 1765 | 1765 | 0 | 1731 | 1800 |
| Adj Flow Rate, veh/h | | | | 248 | 0 | 177 | 0 | 1487 | 0 | 0 | 1358 | 1082 |
| Adj No. of Lanes | | | | 1 | 0 | 1 | 0 | 2 | 1 | 0 | 2 | 0 |
| Peak Hour Factor | | | | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | | | | 3 | 0 | 6 | 0 | 2 | 2 | 0 | 4 | 4 |
| Cap, veh/h | | | | 271 | 0 | 250 | 0 | 2478 | 1053 | 0 | 1334 | 932 |
| Arrive On Green | | | | 0.17 | 0.00 | 0.17 | 0.00 | 1.00 | 0.00 | 0.00 | 0.70 | 0.70 |
| Sat Flow, veh/h | | | | 1564 | 0 | 1443 | 0 | 3529 | 1500 | 0 | 1900 | 1327 |
| Grp Volume(v), veh/h | | | | 248 | 0 | 177 | 0 | 1487 | 0 | 0 | 1220 | 1220 |
| Grp Sat Flow(s), veh/h/ln | | | | 1564 | 0 | 1443 | 0 | 1765 | 1500 | 0 | 1731 | 1497 |
| Q Serve(q_s), s | | | | 14.0 | 0.0 | 10.4 | 0.0 | 0.0 | 0.0 | 0.0 | 63.2 | 63.2 |
| Cycle Q Clear(q_c), s | | | | 14.0 | 0.0 | 10.4 | 0.0 | 0.0 | 0.0 | 0.0 | 63.2 | 63.2 |
| Prop In Lane | | | | 1.00 | | 1.00 | 0.00 | | 1.00 | 0.00 | | 0.89 |
| Lane Grp Cap(c), veh/h | | | | 271 | 0 | 250 | 0 | 2478 | 1053 | 0 | 1215 | 1051 |
| V/C Ratio(X) | | | | 0.91 | 0.00 | 0.71 | 0.00 | 0.60 | 0.00 | 0.00 | 1.00 | 1.16 |
| Avail Cap(c_a), veh/h | | | | 271 | 0 | 250 | 0 | 2478 | 1053 | 0 | 1215 | 1051 |
| HCM Platoon Ratio | | | | 1.00 | 1.00 | 1.00 | 1.00 | 2.00 | 2.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | | | | 1.00 | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | | | | 36.5 | 0.0 | 35.1 | 0.0 | 0.0 | 0.0 | 0.0 | 13.4 | 13.4 |
| Incr Delay (d2), s/veh | | | | 32.5 | 0.0 | 7.6 | 0.0 | 1.1 | 0.0 | 0.0 | 26.7 | 83.2 |
| Initial Q Delay(d3),s/veh | | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | | | | 8.5 | 0.0 | 4.7 | 0.0 | 0.4 | 0.0 | 0.0 | 38.4 | 49.7 |
| LnGrp Delay(d),s/veh | | | | 69.0 | 0.0 | 42.6 | 0.0 | 1.1 | 0.0 | 0.0 | 40.1 | 96.6 |
| LnGrp LOS | | | | Ε | | D | | А | | | F | F |
| Approach Vol, veh/h | | | | | 425 | | | 1487 | | | 2440 | |
| Approach Delay, s/veh | | | | | 58.0 | | | 1.1 | | | 68.4 | |
| Approach LOS | | | | | Е | | | А | | | Е | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | | 2 | | | | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | | 68.6 | | | | 68.6 | | 21.4 | | | | |
| Change Period (Y+Rc), s | | 5.4 | | | | 5.4 | | 5.8 | | | | |
| Max Green Setting (Gmax), s | | 63.2 | | | | 63.2 | | 15.6 | | | | |
| Max Q Clear Time (g_c+I1), s | | 2.0 | | | | 65.2 | | 16.0 | | | | |
| Green Ext Time (p_c), s | | 9.4 | | | | 0.0 | | 0.0 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 44.4 | | | | | | | | | |
| HCM 2010 LOS | | | D | | | | | | | | | |

| | • | - | • | • | • | • | 1 | † | 1 | - | ţ | 4 |
|------------------------------|------|------|------|------|-----|------|------|----------|------|------|----------|------|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | , J | | 7 | | | | | ^ | 7 | | ^ | 7 |
| Traffic Volume (veh/h) | 347 | 0 | 407 | 0 | 0 | 0 | 0 | 1952 | 547 | 0 | 1231 | 246 |
| Future Volume (veh/h) | 347 | 0 | 407 | 0 | 0 | 0 | 0 | 1952 | 547 | 0 | 1231 | 246 |
| Number | 7 | 4 | 14 | | | | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | | | | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | | | | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | | | | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1682 | 0 | 1748 | | | | 0 | 1782 | 1748 | 0 | 1731 | 1651 |
| Adj Flow Rate, veh/h | 381 | 0 | 332 | | | | 0 | 2145 | 0 | 0 | 1353 | 0 |
| Adj No. of Lanes | 1 | 0 | 1 | | | | 0 | 2 | 1 | 0 | 2 | 1 |
| Peak Hour Factor | 0.91 | 0.91 | 0.91 | | | | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 |
| Percent Heavy Veh, % | 7 | 0 | 3 | | | | 0 | 1 | 3 | 0 | 4 | 9 |
| Cap, veh/h | 405 | 0 | 399 | | | | 0 | 2162 | 901 | 0 | 2100 | 852 |
| Arrive On Green | 0.27 | 0.00 | 0.27 | | | | 0.00 | 0.61 | 0.00 | 0.00 | 1.00 | 0.00 |
| Sat Flow, veh/h | 1506 | 0 | 1485 | | | | 0 | 3564 | 1485 | 0 | 3462 | 1404 |
| Grp Volume(v), veh/h | 381 | 0 | 332 | | | | 0 | 2145 | 0 | 0 | 1353 | 0 |
| Grp Sat Flow(s),veh/h/ln | 1506 | 0 | 1485 | | | | 0 | 1782 | 1485 | 0 | 1731 | 1404 |
| Q Serve(g_s), s | 22.3 | 0.0 | 18.9 | | | | 0.0 | 53.5 | 0.0 | 0.0 | 0.0 | 0.0 |
| Cycle Q Clear(g_c), s | 22.3 | 0.0 | 18.9 | | | | 0.0 | 53.5 | 0.0 | 0.0 | 0.0 | 0.0 |
| Prop In Lane | 1.00 | | 1.00 | | | | 0.00 | | 1.00 | 0.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 405 | 0 | 399 | | | | 0 | 2162 | 901 | 0 | 2100 | 852 |
| V/C Ratio(X) | 0.94 | 0.00 | 0.83 | | | | 0.00 | 0.99 | 0.00 | 0.00 | 0.64 | 0.00 |
| Avail Cap(c_a), veh/h | 405 | 0 | 399 | | | | 0 | 2162 | 901 | 0 | 2100 | 852 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | | | | 1.00 | 1.00 | 1.00 | 1.00 | 2.00 | 2.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | | | | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 |
| Uniform Delay (d), s/veh | 32.2 | 0.0 | 31.0 | | | | 0.0 | 17.5 | 0.0 | 0.0 | 0.0 | 0.0 |
| Incr Delay (d2), s/veh | 29.8 | 0.0 | 13.1 | | | | 0.0 | 17.6 | 0.0 | 0.0 | 1.5 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 12.6 | 0.0 | 9.2 | | | | 0.0 | 31.2 | 0.0 | 0.0 | 0.4 | 0.0 |
| LnGrp Delay(d),s/veh | 62.0 | 0.0 | 44.0 | | | | 0.0 | 35.0 | 0.0 | 0.0 | 1.5 | 0.0 |
| LnGrp LOS | E | | D | | | | | D | | | Α | |
| Approach Vol, veh/h | | 713 | | | | | | 2145 | | | 1353 | |
| Approach Delay, s/veh | | 53.6 | | | | | | 35.0 | | | 1.5 | |
| Approach LOS | | D | | | | | | D | | | А | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | | 2 | | 4 | | 6 | | | | | | |
| Phs Duration (G+Y+Rc), s | | 60.0 | | 30.0 | | 60.0 | | | | | | |
| Change Period (Y+Rc), s | | 5.4 | | 5.8 | | 5.4 | | | | | | |
| Max Green Setting (Gmax), s | | 54.6 | | 24.2 | | 54.6 | | | | | | |
| Max Q Clear Time (g_c+l1), s | | 55.5 | | 24.3 | | 2.0 | | | | | | |
| Green Ext Time (p_c), s | | 0.0 | | 0.0 | | 8.0 | | | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 27.4 | | | | | | | | | |
| HCM 2010 LOS | | | С | | | | | | | | | |

| | - | > | • | ← | • | / | | |
|------------------------------|----------|-------|------|------|------|------|------|--|
| | | * | * | | , | | | |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR | | |
| Lane Configurations | ^ | 7 | ሻ | ተተተ | ሻ | 7 | | |
| Traffic Volume (veh/h) | 835 | 221 | 359 | 1125 | 149 | 243 | | |
| Future Volume (veh/h) | 835 | 221 | 359 | 1125 | 149 | 243 | | |
| Number | 2 | 12 | 1 | 6 | 3 | 18 | | |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Ped-Bike Adj(A_pbT) | | 0.96 | 1.00 | | 1.00 | 1.00 | | |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | |
| Adj Sat Flow, veh/h/ln | 1765 | 1765 | 1765 | 1765 | 1765 | 1765 | | |
| Adj Flow Rate, veh/h | 918 | 228 | 395 | 1236 | 164 | 223 | | |
| Adj No. of Lanes | 2 | 1 | 1 | 3 | 1 | 1 | | |
| Peak Hour Factor | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | | |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | | |
| Cap, veh/h | 1099 | 450 | 525 | 3743 | 271 | 257 | | |
| Arrive On Green | 0.31 | 0.31 | 0.33 | 0.71 | 0.17 | 0.17 | | |
| Sat Flow, veh/h | 3529 | 1445 | 1580 | 5294 | 1580 | 1500 | | |
| Grp Volume(v), veh/h | 918 | 228 | 395 | 1236 | 164 | 223 | | |
| Grp Sat Flow(s),veh/h/ln | 1765 | 1445 | 1580 | 1765 | 1580 | 1500 | | |
| Q Serve(g_s), s | 19.4 | 10.3 | 17.8 | 7.1 | 7.7 | 11.6 | | |
| Cycle Q Clear(g_c), s | 19.4 | 10.3 | 17.8 | 7.1 | 7.7 | 11.6 | | |
| Prop In Lane | | 1.00 | 1.00 | | 1.00 | 1.00 | | |
| Lane Grp Cap(c), veh/h | 1099 | 450 | 525 | 3743 | 271 | 257 | | |
| V/C Ratio(X) | 0.84 | 0.51 | 0.75 | 0.33 | 0.60 | 0.87 | | |
| Avail Cap(c_a), veh/h | 1099 | 450 | 525 | 3743 | 304 | 289 | | |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | |
| Upstream Filter(I) | 1.00 | 1.00 | 0.23 | 0.23 | 1.00 | 1.00 | | |
| Uniform Delay (d), s/veh | 25.6 | 22.5 | 23.8 | 4.5 | 30.6 | 32.2 | | |
| Incr Delay (d2), s/veh | 7.6 | 4.0 | 1.3 | 0.1 | 1.5 | 19.8 | | |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | |
| %ile BackOfQ(50%),veh/ln | 10.6 | 4.6 | 8.0 | 3.5 | 3.4 | 6.2 | | |
| LnGrp Delay(d),s/veh | 33.2 | 26.6 | 25.1 | 4.5 | 32.2 | 52.0 | | |
| LnGrp LOS | C | С | С | A | C | D | | |
| Approach Vol, veh/h | 1146 | | | 1631 | 387 | | | |
| Approach Delay, s/veh | 31.9 | | | 9.5 | 43.6 | | | |
| Approach LOS | С | | | А | D | | | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 8 | |
| Assigned Phs | 1 | 2 | | | | 6 | 8 | |
| Phs Duration (G+Y+Rc), s | 31.7 | 30.0 | | | | 61.7 | 18.3 | |
| Change Period (Y+Rc), s | 5.1 | * 5.1 | | | | 5.1 | 4.6 | |
| Max Green Setting (Gmax), s | 25.8 | * 25 | | | | 54.9 | 15.4 | |
| Max Q Clear Time (g_c+l1), s | 19.8 | 21.4 | | | | 9.1 | 13.6 | |
| Green Ext Time (p_c), s | 0.4 | 1.7 | | | | 7.1 | 0.2 | |
| • | | | | | | | | |
| Intersection Summary | | | 01.0 | | | | | |
| HCM 2010 Ctrl Delay | | | 21.8 | | | | | |
| HCM 2010 LOS | | | С | | | | | |
| Notes | | | | | | | | |
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| Intersection | | | | | | |
|--------------------------|-------|--------|--------|-------|--------|-------|
| Int Delay, s/veh | 1.7 | | | | | |
| | | E55 | 14/5 | 14/5= | | NES |
| | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | ₽ | | | - 4 | , A | |
| Traffic Vol, veh/h | 200 | 63 | 0 | 44 | 60 | 0 |
| Future Vol, veh/h | 200 | 63 | 0 | 44 | 60 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, # | # 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 217 | 68 | 0 | 48 | 65 | 0 |
| | | | | | | |
| | | _ | | - | | |
| | ajor1 | | Major2 | | Vinor1 | |
| Conflicting Flow All | 0 | 0 | 285 | 0 | 299 | 251 |
| Stage 1 | - | - | - | - | 251 | - |
| Stage 2 | - | - | - | - | 48 | - |
| Critical Hdwy | - | - | 4.12 | - | 6.42 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 | - |
| Follow-up Hdwy | - | - | 2.218 | - | 3.518 | 3.318 |
| Pot Cap-1 Maneuver | - | - | 1277 | - | 692 | 788 |
| Stage 1 | - | - | - | - | 791 | - |
| Stage 2 | - | - | - | - | 974 | - |
| Platoon blocked, % | - | - | | - | | |
| Mov Cap-1 Maneuver | - | _ | 1277 | _ | 692 | 788 |
| Mov Cap-2 Maneuver | - | _ | - | _ | 692 | - |
| Stage 1 | _ | | _ | _ | 791 | _ |
| Stage 2 | | | | | 974 | _ |
| Jiage Z | - | - | - | - | 714 | - |
| | | | | | | |
| Approach | EB | | WB | | NB | |
| HCM Control Delay, s | 0 | | 0 | | 10.7 | |
| HCM LOS | | | | | В | |
| | | | | | | |
| Minor Lanc/Major Mumat | N | IDI n1 | EDT | EDD | WDI | WDT |
| Minor Lane/Major Mvmt | ľ | VBLn1 | EBT | EBR | WBL | WBT |
| Capacity (veh/h) | | 692 | - | | 1277 | - |
| HCM Lane V/C Ratio | | 0.094 | - | - | - | - |
| HCM Control Delay (s) | | 10.7 | - | - | 0 | - |
| HCM Lane LOS | | В | - | - | Α | - |
| HCM 95th %tile Q(veh) | | 0.3 | - | - | 0 | - |

| Intersection | | | | | | |
|------------------------|----------|----------|--------|---------------|--------|--------|
| Int Delay, s/veh | 1.3 | | | | | |
| | | EDD | WDI | WDT | NIDI | NDD |
| | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | } | nΓ | 0 | ર્ | 77 | 0 |
| Traffic Vol, veh/h | 165 | 35 | 0 | 13 | 31 | 0 |
| Future Vol, veh/h | 165 | 35 | 0 | 13 | 31 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | O Ctop |
| 3 | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | |
| Storage Length | | - | - | - | 0 | - |
| Veh in Median Storage, | | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 179 | 38 | 0 | 14 | 34 | 0 |
| | | | | | | |
| Major/Minor Ma | ajor1 | <u> </u> | Major2 | | Minor1 | |
| Conflicting Flow All | 0 | 0 | 217 | 0 | 212 | 198 |
| Stage 1 | - | - | - | - | 198 | - |
| Stage 2 | - | - | - | - | 14 | - |
| Critical Hdwy | - | - | 4.12 | - | 6.42 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 | - |
| Follow-up Hdwy | - | - | 2.218 | - | 3.518 | 3.318 |
| Pot Cap-1 Maneuver | - | - | 1353 | - | 776 | 843 |
| Stage 1 | - | - | - | - | 835 | - |
| Stage 2 | - | - | - | - | 1009 | - |
| Platoon blocked, % | - | | | - | | |
| Mov Cap-1 Maneuver | - | - | 1353 | - | 776 | 843 |
| Mov Cap-2 Maneuver | - | - | - | - | 776 | - |
| Stage 1 | - | - | - | - | 835 | - |
| Stage 2 | _ | _ | | _ | 1009 | _ |
| Jugo Z | | | | | . 50 / | |
| Annraaah | ED | | MD | | NID | |
| Approach | EB | | WB | | NB | |
| HCM Control Delay, s | 0 | | 0 | | 9.9 | |
| HCM LOS | | | | | Α | |
| | | | | | | |
| Minor Lane/Major Mvmt | N | NBLn1 | EBT | EBR | WBL | WBT |
| Capacity (veh/h) | | 776 | _ | | 1353 | |
| HCM Lane V/C Ratio | | 0.043 | _ | _ | - | _ |
| HCM Control Delay (s) | | 9.9 | - | - | 0 | - |
| HCM Lane LOS | | A | _ | | A | _ |
| HCM 95th %tile Q(veh) | | 0.1 | - | - | 0 | - |
| | | 5.1 | | | - 0 | |

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|------------------------------|-------|----------|------|------|------------|------|------|----------|----------|----------|---------|------|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | 7 | ^ | 7 | ሻሻ | ∱ β | | | र्स | 7 | 7 | ₽ | |
| Traffic Volume (veh/h) | 30 | 1011 | 37 | 102 | 1361 | 221 | 44 | 10 | 171 | 86 | 18 | 79 |
| Future Volume (veh/h) | 30 | 1011 | 37 | 102 | 1361 | 221 | 44 | 10 | 171 | 86 | 18 | 79 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 3 | 8 | 18 | 7 | 4 | 14 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.99 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1765 | 1765 | 1765 | 1765 | 1765 | 1800 | 1800 | 1765 | 1765 | 1765 | 1765 | 1800 |
| Adj Flow Rate, veh/h | 32 | 1064 | 36 | 107 | 1433 | 230 | 46 | 11 | 135 | 91 | 19 | 62 |
| Adj No. of Lanes | 1 | 2 | 1 | 2 | 2 | 0 | 0 | 1 | 1 | 1 | 1 | 0 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 48 | 1657 | 694 | 161 | 1466 | 232 | 389 | 85 | 483 | 384 | 117 | 382 |
| Arrive On Green | 0.03 | 0.47 | 0.47 | 0.05 | 0.49 | 0.49 | 0.32 | 0.32 | 0.32 | 0.32 | 0.32 | 0.32 |
| Sat Flow, veh/h | 1580 | 3529 | 1478 | 2992 | 2975 | 471 | 982 | 264 | 1500 | 1163 | 364 | 1187 |
| Grp Volume(v), veh/h | 32 | 1064 | 36 | 107 | 842 | 821 | 57 | 0 | 135 | 91 | 0 | 81 |
| Grp Sat Flow(s), veh/h/ln | 1580 | 1765 | 1478 | 1496 | 1765 | 1682 | 1246 | 0 | 1500 | 1163 | 0 | 1550 |
| Q Serve(g_s), s | 1.8 | 20.6 | 1.2 | 3.2 | 41.6 | 43.6 | 2.1 | 0.0 | 6.0 | 5.6 | 0.0 | 3.4 |
| Cycle Q Clear(g_c), s | 1.8 | 20.6 | 1.2 | 3.2 | 41.6 | 43.6 | 5.5 | 0.0 | 6.0 | 11.2 | 0.0 | 3.4 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.28 | 0.81 | | 1.00 | 1.00 | | 0.77 |
| Lane Grp Cap(c), veh/h | 48 | 1657 | 694 | 161 | 870 | 829 | 474 | 0 | 483 | 384 | 0 | 499 |
| V/C Ratio(X) | 0.66 | 0.64 | 0.05 | 0.67 | 0.97 | 0.99 | 0.12 | 0.00 | 0.28 | 0.24 | 0.00 | 0.16 |
| Avail Cap(c_a), veh/h | 90 | 1657 | 694 | 253 | 870 | 829 | 474 | 0 | 483 | 384 | 0 | 499 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 0.63 | 0.63 | 0.63 | 0.81 | 0.81 | 0.81 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 43.2 | 18.1 | 13.0 | 41.8 | 22.1 | 22.6 | 23.1 | 0.0 | 22.7 | 26.7 | 0.0 | 21.8 |
| Incr Delay (d2), s/veh | 3.6 | 1.2 | 0.1 | 1.4 | 20.8 | 26.2 | 0.5 | 0.0 | 1.4 | 1.5 | 0.0 | 0.7 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.8 | 10.2 | 0.5 | 1.3 | 25.1 | 26.1 | 1.1 | 0.0 | 2.7 | 2.0 | 0.0 | 1.5 |
| LnGrp Delay(d),s/veh | 46.8 | 19.3 | 13.1 | 43.2 | 42.9 | 48.8 | 23.6 | 0.0 | 24.2 | 28.1 | 0.0 | 22.5 |
| LnGrp LOS | D | B | В | D | D | D | С | 100 | С | С | 470 | С |
| Approach Vol, veh/h | | 1132 | | | 1770 | | | 192 | | | 172 | |
| Approach Delay, s/veh | | 19.9 | | | 45.7 | | | 24.0 | | | 25.5 | |
| Approach LOS | | В | | | D | | | С | | | С | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 9.0 | 47.4 | | 33.6 | 7.0 | 49.4 | | 33.6 | | | | |
| Change Period (Y+Rc), s | * 4.2 | 5.1 | | 4.6 | * 4.2 | 5.1 | | 4.6 | | | | |
| Max Green Setting (Gmax), s | * 7.6 | 39.5 | | 29.0 | * 5.1 | 42.0 | | 29.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 5.2 | 22.6 | | 13.2 | 3.8 | 45.6 | | 8.0 | | | | |
| Green Ext Time (p_c), s | 0.0 | 4.9 | | 0.4 | 0.0 | 0.0 | | 0.4 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 34.4 | | | | | | | | | |
| HCM 2010 LOS | | | С | | | | | | | | | |
| Notes | | | | | | | | | | | | |

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|------------------------------|-------|----------|------|------|----------|------|-----|----------|----------|----------|------|------|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | ^ | 7 | 1/1 | ^ | | | | | Ŋ | 4 | 7 |
| Traffic Volume (veh/h) | 0 | 951 | 317 | 627 | 1400 | 0 | 0 | 0 | 0 | 262 | 10 | 285 |
| Future Volume (veh/h) | 0 | 951 | 317 | 627 | 1400 | 0 | 0 | 0 | 0 | 262 | 10 | 285 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | | | | 7 | 4 | 14 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | | | | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.98 | 1.00 | | 1.00 | | | | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 0 | 1682 | 1667 | 1698 | 1714 | 0 | | | | 1682 | 1716 | 1731 |
| Adj Flow Rate, veh/h | 0 | 970 | 273 | 640 | 1429 | 0 | | | | 348 | 0 | 168 |
| Adj No. of Lanes | 0 | 2 | 1 | 2 | 2 | 0 | | | | 2 | 0 | 1 |
| Peak Hour Factor | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | | | | 0.98 | 0.98 | 0.98 |
| Percent Heavy Veh, % | 0 | 7 | 8 | 6 | 5 | 0 | | | | 7 | 0 | 4 |
| Cap, veh/h | 0 | 1710 | 708 | 697 | 2692 | 0 | | | | 429 | 0 | 197 |
| Arrive On Green | 0.00 | 0.51 | 0.51 | 0.24 | 0.79 | 0.00 | | | | 0.13 | 0.00 | 0.13 |
| Sat Flow, veh/h | 0 | 3364 | 1394 | 2879 | 3429 | 0 | | | | 3204 | 0 | 1471 |
| Grp Volume(v), veh/h | 0 | 970 | 273 | 640 | 1429 | 0 | | | | 348 | 0 | 168 |
| Grp Sat Flow(s),veh/h/ln | 0 | 1682 | 1394 | 1439 | 1714 | 0 | | | | 1602 | 0 | 1471 |
| Q Serve(g_s), s | 0.0 | 23.9 | 14.4 | 26.0 | 18.4 | 0.0 | | | | 12.7 | 0.0 | 13.4 |
| Cycle Q Clear(g_c), s | 0.0 | 23.9 | 14.4 | 26.0 | 18.4 | 0.0 | | | | 12.7 | 0.0 | 13.4 |
| Prop In Lane | 0.00 | | 1.00 | 1.00 | | 0.00 | | | | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 0 | 1710 | 708 | 697 | 2692 | 0 | | | | 429 | 0 | 197 |
| V/C Ratio(X) | 0.00 | 0.57 | 0.39 | 0.92 | 0.53 | 0.00 | | | | 0.81 | 0.00 | 0.85 |
| Avail Cap(c_a), veh/h | 0 | 1710 | 708 | 907 | 2692 | 0 | | | | 625 | 0 | 287 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 0.00 | 0.80 | 0.80 | 0.09 | 0.09 | 0.00 | | | | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 0.0 | 20.4 | 18.0 | 44.3 | 4.7 | 0.0 | | | | 50.5 | 0.0 | 50.8 |
| Incr Delay (d2), s/veh | 0.0 | 1.1 | 1.3 | 1.2 | 0.1 | 0.0 | | | | 3.2 | 0.0 | 10.8 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.0 | 11.3 | 5.8 | 10.4 | 8.6 | 0.0 | | | | 5.8 | 0.0 | 6.1 |
| LnGrp Delay(d),s/veh | 0.0 | 21.5 | 19.3 | 45.5 | 4.8 | 0.0 | | | | 53.7 | 0.0 | 61.6 |
| LnGrp LOS | | С | В | D | А | | | | | D | | E |
| Approach Vol, veh/h | | 1243 | | | 2069 | | | | | | 516 | |
| Approach Delay, s/veh | | 21.0 | | | 17.4 | | | | | | 56.3 | |
| Approach LOS | | С | | | В | | | | | | Е | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | | 6 | | | | | | |
| Phs Duration (G+Y+Rc), s | 33.2 | 66.1 | | 20.7 | | 99.3 | | | | | | |
| Change Period (Y+Rc), s | * 4.2 | 5.1 | | 4.6 | | 5.1 | | | | | | |
| Max Green Setting (Gmax), s | * 38 | 44.9 | | 23.4 | | 86.9 | | | | | | |
| Max Q Clear Time (g_c+I1), s | 28.0 | 25.9 | | 15.4 | | 20.4 | | | | | | |
| Green Ext Time (p_c), s | 1.0 | 5.1 | | 0.7 | | 9.5 | | | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 23.8 | | | | | | | | | |
| HCM 2010 LOS | | | С | | | | | | | | | |
| Notes | | | | | | | | | | | | |

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|------------------------------|------|----------|------|------|----------|-------|------|----------|-------------|----------|-----|-----|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | 1,1 | ^ | | | ^ | 7 | 7 | 4 | 7 | | | |
| Traffic Volume (veh/h) | 204 | 1010 | 0 | 0 | 1396 | 470 | 632 | 84 | 1236 | 0 | 0 | 0 |
| Future Volume (veh/h) | 204 | 1010 | 0 | 0 | 1396 | 470 | 632 | 84 | 1236 | 0 | 0 | 0 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 3 | 8 | 18 | | | |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | | | |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | |
| Adj Sat Flow, veh/h/ln | 1782 | 1682 | 0 | 0 | 1731 | 1698 | 1714 | 1737 | 1748 | | | |
| Adj Flow Rate, veh/h | 217 | 1074 | 0 | 0 | 1485 | 338 | 478 | 0 | 1310 | | | |
| Adj No. of Lanes | 2 | 2 | 0 | 0 | 2 | 1 | 1 | 0 | 2 | | | |
| Peak Hour Factor | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | | | |
| Percent Heavy Veh, % | 1 | 7 | 0 | 0 | 4 | 6 | 5 | 7 | 3 | | | |
| Cap, veh/h | 919 | 2565 | 0 | 0 | 1439 | 600 | 672 | 0 | 1223 | | | |
| Arrive On Green | 0.30 | 0.76 | 0.00 | 0.00 | 0.42 | 0.42 | 0.41 | 0.00 | 0.41 | | | |
| Sat Flow, veh/h | 3021 | 3364 | 0 | 0 | 3462 | 1443 | 1633 | 0 | 2971 | | | |
| Grp Volume(v), veh/h | 217 | 1074 | 0 | 0 | 1485 | 338 | 478 | 0 | 1310 | | | |
| Grp Sat Flow(s),veh/h/ln | 1511 | 1682 | 0 | 0 | 1731 | 1443 | 1633 | 0 | 1485 | | | |
| Q Serve(g_s), s | 6.5 | 13.4 | 0.0 | 0.0 | 49.9 | 21.4 | 29.2 | 0.0 | 49.4 | | | |
| Cycle Q Clear(g_c), s | 6.5 | 13.4 | 0.0 | 0.0 | 49.9 | 21.4 | 29.2 | 0.0 | 49.4 | | | |
| Prop In Lane | 1.00 | | 0.00 | 0.00 | | 1.00 | 1.00 | | 1.00 | | | |
| Lane Grp Cap(c), veh/h | 919 | 2565 | 0 | 0 | 1439 | 600 | 672 | 0 | 1223 | | | |
| V/C Ratio(X) | 0.24 | 0.42 | 0.00 | 0.00 | 1.03 | 0.56 | 0.71 | 0.00 | 1.07 | | | |
| Avail Cap(c_a), veh/h | 919 | 2565 | 0 | 0 | 1439 | 600 | 672 | 0 | 1223 | | | |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | |
| Upstream Filter(I) | 0.71 | 0.71 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | | | |
| Uniform Delay (d), s/veh | 31.3 | 5.0 | 0.0 | 0.0 | 35.1 | 26.7 | 29.4 | 0.0 | 35.3 | | | |
| Incr Delay (d2), s/veh | 0.0 | 0.4 | 0.0 | 0.0 | 32.2 | 3.8 | 3.0 | 0.0 | 47.1 | | | |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | |
| %ile BackOfQ(50%),veh/ln | 2.7 | 6.2 | 0.0 | 0.0 | 30.2 | 9.2 | 13.7 | 0.0 | 28.2 | | | |
| LnGrp Delay(d),s/veh | 31.3 | 5.3 | 0.0 | 0.0 | 67.3 | 30.5 | 32.4 | 0.0 | 82.4 | | | |
| LnGrp LOS | С | Α | | | F | С | С | | F | | | |
| Approach Vol, veh/h | | 1291 | | | 1823 | | | 1788 | | | | |
| Approach Delay, s/veh | | 9.7 | | | 60.5 | | | 69.0 | | | | |
| Approach LOS | | Α | | | Е | | | Е | | | | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | | 2 | | | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | | 97.5 | | | 42.5 | 55.0 | | 54.0 | | | | |
| Change Period (Y+Rc), s | | 5.1 | | | 5.1 | * 5.1 | | 4.6 | | | | |
| Max Green Setting (Gmax), s | | 60.9 | | | 6.8 | * 50 | | 49.4 | | | | |
| Max Q Clear Time (g_c+I1), s | | 15.4 | | | 8.5 | 51.9 | | 51.4 | | | | |
| Green Ext Time (p_c), s | | 6.0 | | | 0.0 | 0.0 | | 0.0 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 50.2 | | | | | | | | | |
| HCM 2010 LOS | | | D | | | | | | | | | |
| Notes | | | | | | | | | | | | |

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|------------------------------------|-------------|-------------|--------------|-------------|-------------|----------|------|
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| Movement | WBL | WBR | NBT | NBR | SBL | SBT | |
| Lane Configurations | ሻሻ | 77 | ^ | 7 | ሻ | ^ | |
| Traffic Volume (veh/h) | 474 | 369 | 869 | 650 | 517 | 1078 | |
| Future Volume (veh/h) | 474 | 369 | 869 | 650 | 517 | 1078 | |
| Number | 3 | 18 | 2 | 12 | 1 | 6 | |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | |
| Ped-Bike Adj(A_pbT) | 1.00 | 1.00 | | 1.00 | 1.00 | | |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| Adj Sat Flow, veh/h/ln | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | |
| Adj Flow Rate, veh/h | 489 | 244 | 896 | 546 | 533 | 1111 | |
| Adj No. of Lanes | 2 | 2 | 2 | 1 | 1 | 2 | |
| Peak Hour Factor | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | |
| Percent Heavy Veh, % | 0 | 0 | 1041 | 0 | 0 | 0 | |
| Cap, veh/h | 545 | 547 | 1041 | 442 | 640 | 2633 | |
| Arrive On Green | 0.18 | 0.18 | 0.58 | 0.58 | 0.40 | 0.73 | |
| Sat Flow, veh/h | 3051 | 3060 | 3600 | 1530 | 1611 | 3600 | |
| Grp Volume(v), veh/h | 489 | 244 | 896 | 546 | 533 | 1111 | |
| Grp Sat Flow(s),veh/h/ln | 1526 | 1530 | 1800 | 1530 | 1611 | 1800 | |
| Q Serve(g_s), s | 18.8 | 8.5 | 25.1 | 34.7 | 35.8 | 14.4 | |
| Cycle Q Clear(g_c), s | 18.8 | 8.5 | 25.1 | 34.7 | 35.8 | 14.4 | |
| Prop In Lane | 1.00 545 | 1.00 | 1041 | 1.00 442 | 1.00 640 | 2633 | |
| Lane Grp Cap(c), veh/h | 0.90 | 547 0.45 | 1041 | 1.23 | 0.83 | 0.42 | |
| V/C Ratio(X) Avail Cap(c_a), veh/h | 610 | 612 | 0.86 1041 | 442 | 640 | 2633 | |
| HCM Platoon Ratio | 1.00 | 1.00 | 2.00 | 2.00 | 1.00 | 1.00 | |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| Uniform Delay (d), s/veh | 48.2 | 44.0 | 23.3 | 25.3 | 32.6 | 6.3 | |
| Incr Delay (d2), s/veh | 14.0 | 0.2 | 9.3 | 123.6 | 8.7 | 0.5 | |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| %ile BackOfQ(50%),veh/ln | 9.0 | 3.6 | 13.5 | 29.4 | 17.4 | 7.3 | |
| LnGrp Delay(d),s/veh | 62.2 | 44.2 | 32.6 | 148.9 | 41.3 | 6.8 | |
| LnGrp LOS | 02.2 E | D | 32.0 C | F | T1.3 | Α | |
| Approach Vol, veh/h | 733 | <u> </u> | 1442 | | <u> </u> | 1644 | |
| Approach Delay, s/veh | 56.2 | | 76.6 | | | 18.0 | |
| Approach LOS | 50.2 E | | 70.0 E | | | В | |
| | | | | | | | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 8 |
| Assigned Phs | 1 | 2 | | | | 6 | 8 |
| Phs Duration (G+Y+Rc), s | 53.1 | 40.1 | | | | 93.2 | 26.8 |
| Change Period (Y+Rc), s | 5.4 | * 5.4 | | | | 5.4 | 5.4 |
| Max Green Setting (Gmax), s | 46.3 | * 35 | | | | 85.2 | 24.0 |
| Max Q Clear Time (g_c+l1), s | 37.8 | 36.7 | | | | 16.4 | 20.8 |
| Green Ext Time (p_c), s | 0.6 | 0.0 | | | | 5.8 | 0.6 |
| Intersection Summary | | | | | | | |
| HCM 2010 Ctrl Delay | | | 47.5 | | | | |
| HCM 2010 LOS | | | D | | | | |
| Notes | | | | | | | |
| NOIGS | | | | | | | |

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|------------------------------|-----|----------|------|----------|----------|------|------|----------|----------|----------|------------|----------|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | | | * | | 7 | | ^ | 7 | | ♦ ₽ | |
| Traffic Volume (veh/h) | 0 | 0 | 0 | 342 | 0 | 331 | 0 | 1189 | 505 | 0 | 1096 | 455 |
| Future Volume (veh/h) | 0 | 0 | 0 | 342 | 0 | 331 | 0 | 1189 | 505 | 0 | 1096 | 455 |
| Number | | | | 3 | 8 | 18 | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | | | | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | | | | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | | | | 1748 | 0 | 1782 | 0 | 1731 | 1651 | 0 | 1748 | 1800 |
| Adj Flow Rate, veh/h | | | | 360 | 0 | 256 | 0 | 1252 | 0 | 0 | 1154 | 479 |
| Adj No. of Lanes | | | | 1 | 0 | 1 | 0 | 2 | 1 | 0 | 2 | 0 |
| Peak Hour Factor | | | | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | | | | 3 | 0 | 1 | 0 | 4 | 9 | 0 | 3 | 3 |
| Cap, veh/h | | | | 411 | 0 | 398 | 0 | 1905 | 773 | 0 | 1306 | 525 |
| Arrive On Green | | | | 0.26 | 0.00 | 0.26 | 0.00 | 0.37 | 0.00 | 0.00 | 0.73 | 0.73 |
| Sat Flow, veh/h | | | | 1564 | 0 | 1515 | 0 | 3462 | 1404 | 0 | 2374 | 953 |
| Grp Volume(v), veh/h | | | | 360 | 0 | 256 | 0 | 1252 | 0 | 0 | 839 | 794 |
| Grp Sat Flow(s),veh/h/ln | | | | 1564 | 0 | 1515 | 0 | 1731 | 1404 | 0 | 1748 | 1579 |
| Q Serve(g_s), s | | | | 13.2 | 0.0 | 9.0 | 0.0 | 18.1 | 0.0 | 0.0 | 21.4 | 24.4 |
| Cycle Q Clear(g_c), s | | | | 13.2 | 0.0 | 9.0 | 0.0 | 18.1 | 0.0 | 0.0 | 21.4 | 24.4 |
| Prop In Lane | | | | 1.00 | | 1.00 | 0.00 | | 1.00 | 0.00 | | 0.60 |
| Lane Grp Cap(c), veh/h | | | | 411 | 0 | 398 | 0 | 1905 | 773 | 0 | 962 | 869 |
| V/C Ratio(X) | | | | 0.87 | 0.00 | 0.64 | 0.00 | 0.66 | 0.00 | 0.00 | 0.87 | 0.91 |
| Avail Cap(c_a), veh/h | | | | 527 | 0 | 510 | 0 | 1905 | 773 | 0 | 962 | 869 |
| HCM Platoon Ratio | | | | 1.00 | 1.00 | 1.00 | 1.00 | 0.67 | 0.67 | 1.00 | 1.33 | 1.33 |
| Upstream Filter(I) | | | | 1.00 | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | | | | 21.2 | 0.0 | 19.6 | 0.0 | 14.2 | 0.0 | 0.0 | 6.5 | 6.9 |
| Incr Delay (d2), s/veh | | | | 10.7 | 0.0 | 0.7 | 0.0 | 1.8 | 0.0 | 0.0 | 10.8 | 15.6 |
| Initial Q Delay(d3),s/veh | | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | | | | 6.9 | 0.0 | 3.8 | 0.0 | 9.0 | 0.0 | 0.0 | 12.5 | 13.8 |
| LnGrp Delay(d),s/veh | | | | 31.9 | 0.0 | 20.3 | 0.0 | 16.0 | 0.0 | 0.0 | 17.3 | 22.4 |
| LnGrp LOS | | | | С | | С | | В | | | В | С |
| Approach Vol, veh/h | | | | | 616 | | | 1252 | | | 1633 | |
| Approach Delay, s/veh | | | | | 27.1 | | | 16.0 | | | 19.8 | |
| Approach LOS | | | | | С | | | В | | | В | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | | 2 | | | | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | | 38.4 | | | | 38.4 | | 21.6 | | | | |
| Change Period (Y+Rc), s | | 5.4 | | | | 5.4 | | 5.8 | | | | |
| Max Green Setting (Gmax), s | | 28.6 | | | | 28.6 | | 20.2 | | | | |
| Max Q Clear Time (g_c+I1), s | | 20.1 | | | | 26.4 | | 15.2 | | | | |
| Green Ext Time (p_c), s | | 3.9 | | | | 1.6 | | 0.6 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 19.7 | | | | | | | | | |
| HCM 2010 LOS | | | В | | | | | | | | | |

| | ʹ | → | • | • | ← | • | • | <u>†</u> | <u></u> | <u> </u> | 1 | 1 |
|------------------------------|------|----------|------|------|----------|------|------|----------|---------|----------|----------|------|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | * | | 7 | | | | | ^ | 7 | | ^ | 1 |
| Traffic Volume (veh/h) | 568 | 0 | 474 | 0 | 0 | 0 | 0 | 1126 | 244 | 0 | 1063 | 375 |
| Future Volume (veh/h) | 568 | 0 | 474 | 0 | 0 | 0 | 0 | 1126 | 244 | 0 | 1063 | 375 |
| Number | 7 | 4 | 14 | | | | 5 | 2 | 12 | 1 | 6 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | | | | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | | | | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | | | | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1682 | 0 | 1765 | | | | 0 | 1714 | 1636 | 0 | 1765 | 1731 |
| Adj Flow Rate, veh/h | 592 | 0 | 354 | | | | 0 | 1173 | 0 | 0 | 1107 | 0 |
| Adj No. of Lanes | 1 | 0 | 1 | | | | 0 | 2 | 1 | 0 | 2 | 1 |
| Peak Hour Factor | 0.96 | 0.96 | 0.96 | | | | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 |
| Percent Heavy Veh, % | 7 | 0 | 2 | | | | 0 | 5 | 10 | 0 | 2 | 4 |
| Cap, veh/h | 624 | 0 | 622 | | | | 0 | 1367 | 555 | 0 | 1407 | 587 |
| Arrive On Green | 0.41 | 0.00 | 0.41 | | | | 0.00 | 0.40 | 0.00 | 0.00 | 0.80 | 0.00 |
| Sat Flow, veh/h | 1506 | 0 | 1500 | | | | 0 | 3429 | 1391 | 0 | 3529 | 1471 |
| Grp Volume(v), veh/h | 592 | 0 | 354 | | | | 0 | 1173 | 0 | 0 | 1107 | 0 |
| Grp Sat Flow(s), veh/h/ln | 1506 | 0 | 1500 | | | | 0 | 1714 | 1391 | 0 | 1765 | 1471 |
| Q Serve(q_s), s | 22.7 | 0.0 | 10.8 | | | | 0.0 | 18.8 | 0.0 | 0.0 | 10.2 | 0.0 |
| Cycle Q Clear(g_c), s | 22.7 | 0.0 | 10.8 | | | | 0.0 | 18.8 | 0.0 | 0.0 | 10.2 | 0.0 |
| Prop In Lane | 1.00 | | 1.00 | | | | 0.00 | | 1.00 | 0.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 624 | 0 | 622 | | | | 0 | 1367 | 555 | 0 | 1407 | 587 |
| V/C Ratio(X) | 0.95 | 0.00 | 0.57 | | | | 0.00 | 0.86 | 0.00 | 0.00 | 0.79 | 0.00 |
| Avail Cap(c_a), veh/h | 633 | 0 | 630 | | | | 0 | 1367 | 555 | 0 | 1407 | 587 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | | | | 1.00 | 1.00 | 1.00 | 1.00 | 2.00 | 2.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | | | | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 |
| Uniform Delay (d), s/veh | 16.9 | 0.0 | 13.5 | | | | 0.0 | 16.5 | 0.0 | 0.0 | 4.7 | 0.0 |
| Incr Delay (d2), s/veh | 23.2 | 0.0 | 0.7 | | | | 0.0 | 7.2 | 0.0 | 0.0 | 4.5 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 13.4 | 0.0 | 4.6 | | | | 0.0 | 10.2 | 0.0 | 0.0 | 5.2 | 0.0 |
| LnGrp Delay(d),s/veh | 40.2 | 0.0 | 14.2 | | | | 0.0 | 23.7 | 0.0 | 0.0 | 9.2 | 0.0 |
| LnGrp LOS | D | | В | | | | | С | | | Α | |
| Approach Vol, veh/h | | 946 | | | | | | 1173 | | | 1107 | |
| Approach Delay, s/veh | | 30.5 | | | | | | 23.7 | | | 9.2 | |
| Approach LOS | | С | | | | | | С | | | Α | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | | 2 | | 4 | | 6 | | | | | | |
| Phs Duration (G+Y+Rc), s | | 29.3 | | 30.7 | | 29.3 | | | | | | |
| Change Period (Y+Rc), s | | 5.4 | | 5.8 | | 5.4 | | | | | | |
| Max Green Setting (Gmax), s | | 23.6 | | 25.2 | | 23.6 | | | | | | |
| Max Q Clear Time (g_c+l1), s | | 20.8 | | 24.7 | | 12.2 | | | | | | |
| Green Ext Time (p_c), s | | 1.6 | | 0.1 | | 4.0 | | | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 20.7 | | | | | | | | | |
| HCM 2010 LOS | | | С | | | | | | | | | |

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|------------------------------|----------|-------|------|------|----------|-------|
| | → | * | • | | 7 | ~ |
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | ^ | 7 | ሻ | ተተተ | <u>ነ</u> | 7 |
| Traffic Volume (veh/h) | 1070 | 225 | 593 | 751 | 334 | 658 |
| Future Volume (veh/h) | 1070 | 225 | 593 | 751 | 334 | 658 |
| Number | 2 | 12 | 1 | 6 | 3 | 18 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | | 0.99 | 1.00 | | 1.00 | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1765 | 1765 | 1765 | 1765 | 1765 | 1765 |
| Adj Flow Rate, veh/h | 1103 | 216 | 611 | 774 | 344 | 571 |
| Adj No. of Lanes | 2 | 1 | 1 | 3 | 1 | 1 |
| Peak Hour Factor | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 1347 | 569 | 935 | 5603 | 458 | 435 |
| Arrive On Green | 0.38 | 0.38 | 0.59 | 1.00 | 0.29 | 0.29 |
| Sat Flow, veh/h | 3529 | 1492 | 1580 | 5294 | 1580 | 1500 |
| Grp Volume(v), veh/h | 1103 | 216 | 611 | 774 | 344 | 571 |
| Grp Sat Flow(s), veh/h/ln | 1765 | 1492 | 1580 | 1765 | 1580 | 1500 |
| Q Serve(g_s), s | 16.9 | 6.3 | 15.5 | 0.0 | 11.9 | 17.4 |
| Cycle Q Clear(g_c), s | 16.9 | 6.3 | 15.5 | 0.0 | 11.9 | 17.4 |
| Prop In Lane | 10.7 | 1.00 | 1.00 | 0.0 | 1.00 | 1.00 |
| Lane Grp Cap(c), veh/h | 1347 | 569 | 935 | 5603 | 458 | 435 |
| V/C Ratio(X) | 0.82 | 0.38 | 0.65 | 0.14 | 0.75 | 1.31 |
| | | | 935 | 5603 | 458 | 435 |
| Avail Cap(c_a), veh/h | 1347 | 569 | | | | |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 0.57 | 0.57 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 16.7 | 13.4 | 8.2 | 0.0 | 19.3 | 21.3 |
| Incr Delay (d2), s/veh | 5.6 | 1.9 | 0.7 | 0.0 | 6.1 | 156.3 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 9.2 | 2.9 | 6.8 | 0.0 | 5.9 | 26.0 |
| LnGrp Delay(d),s/veh | 22.3 | 15.3 | 8.9 | 0.0 | 25.4 | 177.6 |
| LnGrp LOS | С | В | Α | Α | С | F |
| Approach Vol, veh/h | 1319 | | | 1385 | 915 | |
| Approach Delay, s/veh | 21.2 | | | 3.9 | 120.4 | |
| Approach LOS | С | | | А | F | |
| Timer | 1 | 2 | 2 | 1 | 5 | 6 |
| | | 2 | 3 | 4 | 5 | 6 |
| Assigned Phs | 1 | 2 | | | | 6 |
| Phs Duration (G+Y+Rc), s | 41.5 | 28.0 | | | | 69.5 |
| Change Period (Y+Rc), s | 5.1 | * 5.1 | | | | 5.1 |
| Max Green Setting (Gmax), s | 5.8 | * 23 | | | | 32.9 |
| Max Q Clear Time (g_c+I1), s | 17.5 | 18.9 | | | | 2.0 |
| Green Ext Time (p_c), s | 0.0 | 2.2 | | | | 3.8 |
| Intersection Summary | | | | | | |
| HCM 2010 Ctrl Delay | | | 39.7 | | | |
| HCM 2010 LOS | | | J7.7 | | | |
| | | | D | | | |
| Notes | | | | | | |

| Intersection | | | | | | |
|------------------------|----------|--------|--------------|---------------|-----------|--------|
| Int Delay, s/veh | 2.1 | | | | | |
| | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | 1 | LDI | WDL | ₩ 4 | NDL Y | אטוז |
| Traffic Vol, veh/h | 68 | 106 | 0 | 171 | 79 | 0 |
| Future Vol, veh/h | 68 | 106 | 0 | 171 | 79 | 0 |
| Conflicting Peds, #/hr | 00 | 0 | 0 | 0 | 0 | 0 |
| · · | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | | None | 310p - | None |
| Storage Length | - | NONE - | - | - | 0 | NONE - |
| Veh in Median Storage, | | - | - | 0 | 0 | - |
| Grade, % | # 0 | - | _ | 0 | 0 | |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| | | | | | | |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 74 | 115 | 0 | 186 | 86 | 0 |
| | | | | | | |
| Major/Minor Ma | ajor1 | ľ | Major2 | N | Minor1 | |
| Conflicting Flow All | 0 | 0 | 189 | 0 | 318 | 132 |
| Stage 1 | - | - | - | - | 132 | - |
| Stage 2 | - | - | - | - | 186 | - |
| Critical Hdwy | - | - | 4.12 | - | 6.42 | 6.22 |
| Critical Hdwy Stg 1 | - | - | _ | _ | 5.42 | _ |
| Critical Hdwy Stg 2 | - | - | _ | _ | 5.42 | _ |
| Follow-up Hdwy | _ | _ | 2.218 | _ | | 3.318 |
| Pot Cap-1 Maneuver | _ | _ | 1385 | _ | 675 | 917 |
| Stage 1 | _ | _ | 1000 | _ | 894 | - |
| Stage 2 | - | _ | - | - | 846 | _ |
| Platoon blocked, % | - | - | - | - | 040 | - |
| | | _ | 1385 | | 675 | 917 |
| Mov Cap-1 Maneuver | - | - | 1300 | - | | |
| Mov Cap-2 Maneuver | - | - | - | - | 675 | - |
| Stage 1 | - | - | - | - | 894 | - |
| Stage 2 | - | - | - | - | 846 | - |
| | | | | | | |
| Approach | EB | | WB | | NB | |
| HCM Control Delay, s | 0 | | 0 | | 11.1 | |
| HCM LOS | | | Ü | | В | |
| | | | | | | |
| | | | | | | |
| Minor Lane/Major Mvmt | <u> </u> | VBLn1 | EBT | EBR | WBL | WBT |
| Capacity (veh/h) | | 675 | - | - | 1385 | - |
| HCM Lane V/C Ratio | | 0.127 | - | - | - | - |
| HCM Control Delay (s) | | 11.1 | - | - | 0 | - |
| HCM Lane LOS | | В | - | - | Α | - |
| | | | | | | |
| HCM 95th %tile Q(veh) | | 0.4 | - | - | 0 | - |

| Intersection | | | | | | |
|------------------------|----------|----------|--------|------|--------|------|
| Int Delay, s/veh | 1.7 | | | | | |
| | | | | | | |
| | EBT | EBR | WBL | WBT | NBL | NBR |
| Lane Configurations | ₽ | | | 4 | , M | |
| Traffic Vol, veh/h | 13 | 55 | 0 | 128 | 43 | 0 |
| Future Vol, veh/h | 13 | 55 | 0 | 128 | 43 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| ů . | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | |
| Storage Length | - | - | - | - | 0 | - |
| Veh in Median Storage, | # 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 14 | 60 | 0 | 139 | 47 | 0 |
| IVIVIIIL I IOVV | 14 | 00 | U | 137 | 47 | U |
| | | | | | | |
| Major/Minor Ma | ajor1 | <u> </u> | Major2 | | Minor1 | |
| Conflicting Flow All | 0 | 0 | 74 | 0 | 183 | 44 |
| Stage 1 | - | - | - | - | 44 | - |
| Stage 2 | - | _ | _ | - | 139 | - |
| Critical Hdwy | - | - | 4.12 | - | 6.42 | 6.22 |
| Critical Hdwy Stg 1 | _ | | - 1.12 | _ | 5.42 | - |
| Critical Hdwy Stg 2 | _ | | _ | _ | 5.42 | _ |
| Follow-up Hdwy | - | | 2.218 | | 3.518 | |
| Pot Cap-1 Maneuver | - | - | 1526 | - | 806 | 1026 |
| | - | - | 1020 | | 978 | 1020 |
| Stage 1 | - | - | | - | | |
| Stage 2 | - | - | - | - | 888 | - |
| Platoon blocked, % | - | - | 4507 | - | 00/ | 1001 |
| Mov Cap-1 Maneuver | - | - | 1526 | - | 806 | 1026 |
| Mov Cap-2 Maneuver | - | - | - | - | 806 | - |
| Stage 1 | - | - | - | - | 978 | - |
| Stage 2 | - | - | - | - | 888 | - |
| | | | | | | |
| Annroach | ĘD. | | M/D | | MD | |
| Approach | EB | | WB | | NB | |
| HCM Control Delay, s | 0 | | 0 | | 9.7 | |
| HCM LOS | | | | | Α | |
| | | | | | | |
| Minor Lane/Major Mvmt | ľ | VBLn1 | EBT | EBR | WBL | WBT |
| Capacity (veh/h) | <u> </u> | 806 | - | - | 1526 | - |
| HCM Lane V/C Ratio | | 0.058 | - | - | 1320 | - |
| HCM Control Delay (s) | | 9.7 | | | | |
| | | | - | - | 0 | - |
| HCM Lane LOS | | A | - | - | A | - |
| HCM 95th %tile Q(veh) | | 0.2 | - | - | 0 | - |

| | • | | _ | _ | ← | • | • | <u></u> | <u></u> | <u> </u> | 1 | 4 |
|------------------------------|------|----------|------|--|----------|------|------|---------|---------|----------|----------|----------|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | T) | † | T T | ************************************** | ↑ | WDIX | NDL | 4 | NDK | JDL 1 | <u> </u> | JUIN |
| Traffic Volume (veh/h) | 103 | 1504 | 121 | 457 | 1229 | 94 | 76 | 20 | 466 | 61 | 14 | 39 |
| Future Volume (veh/h) | 103 | 1504 | 121 | 457 | 1229 | 94 | 76 | 20 | 466 | 61 | 14 | 39 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 3 | 8 | 18 | 7 | 4 | 14 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 1765 | 1765 | 1765 | 1765 | 1765 | 1800 | 1800 | 1765 | 1765 | 1765 | 1765 | 1800 |
| Adj Flow Rate, veh/h | 107 | 1567 | 120 | 476 | 1280 | 64 | 79 | 21 | 415 | 64 | 15 | 38 |
| Adj No. of Lanes | 1 | 2 | 1 | 2 | 2 | 0 | 0 | 1 | 1 | 1 | 1 | 0 |
| Peak Hour Factor | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 129 | 1582 | 672 | 868 | 2216 | 111 | 324 | 79 | 395 | 232 | 117 | 295 |
| Arrive On Green | 0.08 | 0.45 | 0.45 | 0.29 | 0.66 | 0.66 | 0.26 | 0.26 | 0.26 | 0.26 | 0.26 | 0.26 |
| Sat Flow, veh/h | 1580 | 3529 | 1499 | 2992 | 3334 | 166 | 1007 | 300 | 1500 | 892 | 442 | 1120 |
| Grp Volume(v), veh/h | 107 | 1567 | 120 | 476 | 677 | 667 | 100 | 0 | 415 | 64 | 0 | 53 |
| Grp Sat Flow(s),veh/h/ln | 1580 | 1765 | 1499 | 1496 | 1765 | 1735 | 1307 | 0 | 1500 | 892 | 0 | 1562 |
| Q Serve(g_s), s | 7.3 | 48.5 | 5.3 | 14.8 | 22.9 | 23.0 | 5.7 | 0.0 | 29.0 | 6.9 | 0.0 | 2.8 |
| Cycle Q Clear(g_c), s | 7.3 | 48.5 | 5.3 | 14.8 | 22.9 | 23.0 | 8.5 | 0.0 | 29.0 | 15.4 | 0.0 | 2.8 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.10 | 0.79 | | 1.00 | 1.00 | | 0.72 |
| Lane Grp Cap(c), veh/h | 129 | 1582 | 672 | 868 | 1173 | 1154 | 403 | 0 | 395 | 232 | 0 | 412 |
| V/C Ratio(X) | 0.83 | 0.99 | 0.18 | 0.55 | 0.58 | 0.58 | 0.25 | 0.00 | 1.05 | 0.28 | 0.00 | 0.13 |
| Avail Cap(c_a), veh/h | 158 | 1582 | 672 | 868 | 1173 | 1154 | 403 | 0 | 395 | 232 | 0 | 412 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 0.21 | 0.21 | 0.21 | 0.79 | 0.79 | 0.79 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 49.7 | 30.1 | 18.2 | 33.0 | 10.0 | 10.0 | 33.7 | 0.0 | 40.5 | 39.2 | 0.0 | 30.9 |
| Incr Delay (d2), s/veh | 5.3 | 8.3 | 0.1 | 0.3 | 1.6 | 1.7 | 1.5 | 0.0 | 58.8 | 2.9 | 0.0 | 0.6 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 3.4 | 25.3 | 2.2 | 6.1 | 11.6 | 11.5 | 2.6 | 0.0 | 18.4 | 1.9 | 0.0 | 1.3 |
| LnGrp Delay(d),s/veh | 55.0 | 38.5 | 18.3 | 33.3 | 11.7 | 11.7 | 35.1 | 0.0 | 99.3 | 42.2 | 0.0 | 31.5 |
| LnGrp LOS | D | D | В | С | В | В | D | | F | D | | <u>C</u> |
| Approach Vol, veh/h | | 1794 | | | 1820 | | | 515 | | | 117 | |
| Approach Delay, s/veh | | 38.1 | | | 17.3 | | | 86.8 | | | 37.3 | |
| Approach LOS | | D | | | В | | | F | | | D | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 37.0 | 54.4 | | 33.6 | 13.2 | 78.2 | | 33.6 | | | | |
| Change Period (Y+Rc), s | 5.1 | * 5.1 | | 4.6 | * 4.2 | 5.1 | | 4.6 | | | | |
| Max Green Setting (Gmax), s | 17.8 | * 49 | | 29.0 | * 11 | 56.1 | | 29.0 | | | | |
| Max Q Clear Time (g_c+l1), s | 16.8 | 50.5 | | 17.4 | 9.3 | 25.0 | | 31.0 | | | | |
| Green Ext Time (p_c), s | 0.1 | 0.0 | | 0.3 | 0.0 | 6.8 | | 0.0 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 35.1 | | | | | | | | | |
| HCM 2010 LOS | | | D | | | | | | | | | |
| Notes | | | | | | | | | | | | |

| | • | → | • | • | ← | • | • | † | <u> </u> | \ | | 4 |
|------------------------------------|------|--------------|-----------|--------------|----------|-------|-----|-----|----------|--------------|-----------|--------------|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | ^ | 7 | ሻሻ | ^ | | | | | ሻ | 4 | 7 |
| Traffic Volume (veh/h) | 0 | 1496 | 535 | 848 | 1471 | 0 | 0 | 0 | 0 | 370 | 1 | 308 |
| Future Volume (veh/h) | 0 | 1496 | 535 | 848 | 1471 | 0 | 0 | 0 | 0 | 370 | 1 | 308 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | | | | 7 | 4 | 14 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | | | | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.99 | 1.00 | | 1.00 | | | | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | | 1.00 | 1.00 | 1.00 |
| Adj Sat Flow, veh/h/ln | 0 | 1714 | 1731 | 1731 | 1782 | 0 | | | | 1731 | 1724 | 1714 |
| Adj Flow Rate, veh/h | 0 | 1527 | 465 | 865 | 1501 | 0 | | | | 463 | 0 | 181 |
| Adj No. of Lanes | 0 | 2 | 1 | 2 | 2 | 0 | | | | 2 | 0 | 1 |
| Peak Hour Factor | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | | | | 0.98 | 0.98 | 0.98 |
| Percent Heavy Veh, % | 0 | 5 | 4 | 4 | 1 | 0 | | | | 4 | 0 | 5 |
| Cap, veh/h | 0 | 1514 | 641 | 1090 | 3049 | 0 | | | | 503 | 0 | 222 |
| Arrive On Green | 0.00 | 0.44 | 0.44 | 0.37 | 0.86 | 0.00 | | | | 0.15 | 0.00 | 0.15 |
| Sat Flow, veh/h | 0 | 3429 | 1451 | 2934 | 3564 | 0 | | | | 3297 | 0 | 1457 |
| Grp Volume(v), veh/h | 0 | 1527 | 465 | 865 | 1501 | 0 | | | | 463 | 0 | 181 |
| Grp Sat Flow(s),veh/h/ln | 0 | 1714 | 1451 | 1467 | 1782 | 0 | | | | 1648 | 0 | 1457 |
| Q Serve(g_s), s | 0.0 | 53.0 | 31.6 | 31.5 | 12.6 | 0.0 | | | | 16.6 | 0.0 | 14.4 |
| Cycle Q Clear(g_c), s | 0.0 | 53.0 | 31.6 | 31.5 | 12.6 | 0.0 | | | | 16.6 | 0.0 | 14.4 |
| Prop In Lane | 0.00 | 4544 | 1.00 | 1.00 | 00.40 | 0.00 | | | | 1.00 | 0 | 1.00 |
| Lane Grp Cap(c), veh/h | 0 | 1514 | 641 | 1090 | 3049 | 0 | | | | 503 | 0 | 222 |
| V/C Ratio(X) | 0.00 | 1.01 | 0.73 | 0.79 | 0.49 | 0.00 | | | | 0.92 | 0.00 | 0.81 |
| Avail Cap(c_a), veh/h | 0 | 1514 | 641 | 1090 | 3049 | 0 | | | | 503 | 0 | 222 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 0.00 | 0.27 | 0.27 | 0.09 | 0.09 | 0.00 | | | | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 0.0 | 33.5 | 27.5 | 33.6 | 2.2 | 0.0 | | | | 50.1 22.0 | 0.0 | 49.2 19.1 |
| Incr Delay (d2), s/veh | 0.0 | 14.2 | 2.0 | 0.4 | 0.1 | 0.0 | | | | | 0.0 | 0.0 |
| Initial Q Delay(d3),s/veh | | 0.0 | 13.0 | | 6.1 | 0.0 | | | | 0.0 9.1 | 0.0 | 7.0 |
| %ile BackOfQ(50%),veh/ln | 0.0 | 28.0 47.7 | 29.5 | 12.8 34.0 | 2.2 | | | | | 72.2 | 0.0 | 68.3 |
| LnGrp Delay(d),s/veh LnGrp LOS | 0.0 | 47.7 F | 29.3 C | 34.0 C | 2.2 A | 0.0 | | | | 72.2 E | 0.0 | |
| | | | C | C | | | | | | <u> </u> | / / / | E |
| Approach Vol, veh/h | | 1992 | | | 2366 | | | | | | 644 | |
| Approach Delay, s/veh Approach LOS | | 43.4 D | | | 13.8 | | | | | | 71.1 E | |
| Approach LOS | | U | | | В | | | | | | E | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | 1 | 2 | | 4 | | 6 | | | | | | |
| Phs Duration (G+Y+Rc), s | 49.7 | 58.1 | | 22.9 | | 107.8 | | | | | | |
| Change Period (Y+Rc), s | 5.1 | * 5.1 | | 4.6 | | 5.1 | | | | | | |
| Max Green Setting (Gmax), s | 34.8 | * 53 | | 18.3 | | 92.0 | | | | | | |
| Max Q Clear Time (g_c+I1), s | 33.5 | 55.0 | | 18.6 | | 14.6 | | | | | | |
| Green Ext Time (p_c), s | 0.4 | 0.0 | | 0.0 | | 10.3 | | | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 33.0 | | | | | | | | | |
| HCM 2010 LOS | | | С | | | | | | | | | |
| Notes | | | | | | | | | | | | |

| | • | → | • | • | — | • | • | † | ~ | <u> </u> | + | √ |
|------------------------------|------|----------|------|------|----------|-------|------|------|------|----------|----------|----------|
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | 1,1 | ^ | | | ^ | 7 | ሻ | 4 | 7 | | | |
| Traffic Volume (veh/h) | 187 | 1678 | 0 | 0 | 1923 | 257 | 397 | 147 | 685 | 0 | 0 | 0 |
| Future Volume (veh/h) | 187 | 1678 | 0 | 0 | 1923 | 257 | 397 | 147 | 685 | 0 | 0 | 0 |
| Number | 5 | 2 | 12 | 1 | 6 | 16 | 3 | 8 | 18 | | | |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | | | |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | |
| Adj Sat Flow, veh/h/ln | 1765 | 1714 | 0 | 0 | 1765 | 1667 | 1765 | 1709 | 1698 | | | |
| Adj Flow Rate, veh/h | 195 | 1748 | 0 | 0 | 2003 | 220 | 327 | 387 | 360 | | | |
| Adj No. of Lanes | 2 | 2 | 0 | 0 | 2 | 1 | 1 | 1 | 1 | | | |
| Peak Hour Factor | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | | | |
| Percent Heavy Veh, % | 2 | 5 | 0 | 0 | 2 | 8 | 2 | 5 | 6 | | | |
| Cap, veh/h | 299 | 2228 | 0 | 0 | 1791 | 719 | 452 | 460 | 387 | | | |
| Arrive On Green | 0.20 | 1.00 | 0.00 | 0.00 | 0.51 | 0.51 | 0.27 | 0.27 | 0.27 | | | |
| Sat Flow, veh/h | 2992 | 3429 | 0 | 0 | 3529 | 1417 | 1681 | 1709 | 1437 | | | |
| Grp Volume(v), veh/h | 195 | 1748 | 0 | 0 | 2003 | 220 | 327 | 387 | 360 | | | |
| Grp Sat Flow(s),veh/h/ln | 1496 | 1714 | 0 | 0 | 1765 | 1417 | 1681 | 1709 | 1437 | | | |
| Q Serve(g_s), s | 7.2 | 0.0 | 0.0 | 0.0 | 60.9 | 10.9 | 21.2 | 25.7 | 29.3 | | | |
| Cycle Q Clear(g_c), s | 7.2 | 0.0 | 0.0 | 0.0 | 60.9 | 10.9 | 21.2 | 25.7 | 29.3 | | | |
| Prop In Lane | 1.00 | | 0.00 | 0.00 | | 1.00 | 1.00 | | 1.00 | | | |
| Lane Grp Cap(c), veh/h | 299 | 2228 | 0 | 0 | 1791 | 719 | 452 | 460 | 387 | | | |
| V/C Ratio(X) | 0.65 | 0.78 | 0.00 | 0.00 | 1.12 | 0.31 | 0.72 | 0.84 | 0.93 | | | |
| Avail Cap(c_a), veh/h | 299 | 2228 | 0 | 0 | 1791 | 719 | 482 | 490 | 412 | | | |
| HCM Platoon Ratio | 2.00 | 2.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | |
| Upstream Filter(I) | 0.09 | 0.09 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | |
| Uniform Delay (d), s/veh | 46.1 | 0.0 | 0.0 | 0.0 | 29.5 | 17.2 | 39.8 | 41.4 | 42.8 | | | |
| Incr Delay (d2), s/veh | 0.4 | 0.3 | 0.0 | 0.0 | 61.4 | 1.1 | 4.1 | 11.0 | 26.1 | | | |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | |
| %ile BackOfQ(50%),veh/ln | 3.0 | 0.1 | 0.0 | 0.0 | 44.6 | 4.4 | 10.3 | 13.6 | 14.4 | | | |
| LnGrp Delay(d),s/veh | 46.5 | 0.3 | 0.0 | 0.0 | 91.0 | 18.3 | 43.9 | 52.4 | 68.8 | | | |
| LnGrp LOS | D | A | | | F | В | D | D | E | | | |
| Approach Vol, veh/h | | 1943 | | | 2223 | | | 1074 | | | | |
| Approach Delay, s/veh | | 4.9 | | | 83.8 | | | 55.3 | | | | |
| Approach LOS | | Α | | | F | | | Е | | | | |
| Timer | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | |
| Assigned Phs | | 2 | | | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | | 83.1 | | | 17.1 | 66.0 | | 36.9 | | | | |
| Change Period (Y+Rc), s | | 5.1 | | | 5.1 | * 5.1 | | 4.6 | | | | |
| Max Green Setting (Gmax), s | | 75.9 | | | 10.8 | * 61 | | 34.4 | | | | |
| Max Q Clear Time (g_c+I1), s | | 2.0 | | | 9.2 | 62.9 | | 31.3 | | | | |
| Green Ext Time (p_c), s | | 14.2 | | | 0.1 | 0.0 | | 1.0 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2010 Ctrl Delay | | | 48.7 | | | | | | | | | |
| HCM 2010 LOS | | | D | | | | | | | | | |
| Notes | | | | | | | | | | | | |

ATTACHMENT F

HORIZON YEAR (2040) WITH PROJECT FREEWAY OFF-RAMP QUEUING ANALYSIS
WORKSHEETS



| | • | • | † | 1 | ļ |
|-------------------------|------|------|----------|------|------|
| Lane Group | WBL | WBR | NBT | NBR | SBT |
| Lane Group Flow (vph) | 248 | 230 | 1487 | 1011 | 2440 |
| v/c Ratio | 0.93 | 0.77 | 0.60 | 0.76 | 1.00 |
| Control Delay | 79.0 | 43.9 | 5.9 | 3.8 | 30.7 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.7 | 0.0 |
| Total Delay | 79.0 | 43.9 | 5.9 | 4.4 | 30.7 |
| Queue Length 50th (ft) | 148 | 91 | 137 | 28 | ~534 |
| Queue Length 95th (ft) | #300 | #204 | m140 | m33 | #817 |
| Internal Link Dist (ft) | | | 112 | | 96 |
| Turn Bay Length (ft) | | 1000 | | | |
| Base Capacity (vph) | 270 | 303 | 2487 | 1333 | 2434 |
| Starvation Cap Reductn | 0 | 0 | 0 | 97 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.92 | 0.76 | 0.60 | 0.82 | 1.00 |

Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.

^{# 95}th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

| | • | • | † | - | ↓ | 4 |
|-------------------------|------|------|----------|------|----------|------|
| Lane Group | EBL | EBR | NBT | NBR | SBT | SBR |
| Lane Group Flow (vph) | 381 | 447 | 2145 | 601 | 1353 | 270 |
| v/c Ratio | 0.95 | 1.02 | 0.99 | 0.40 | 0.64 | 0.20 |
| Control Delay | 67.3 | 79.9 | 36.2 | 0.8 | 10.3 | 0.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 67.3 | 79.9 | 36.2 | 0.8 | 10.3 | 0.1 |
| Queue Length 50th (ft) | 225 | ~240 | 551 | 0 | 184 | 0 |
| Queue Length 95th (ft) | #411 | #436 | #766 | 0 | m188 | m0 |
| Internal Link Dist (ft) | | | 135 | | 136 | |
| Turn Bay Length (ft) | | 915 | | | | |
| Base Capacity (vph) | 403 | 437 | 2162 | 1485 | 2100 | 1367 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.95 | 1.02 | 0.99 | 0.40 | 0.64 | 0.20 |

Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.

^{# 95}th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

| | - | • | • | ← | \ | ↓ | 1 |
|-------------------------|------|------|------|----------|----------|------|------|
| Lane Group | EBT | EBR | WBL | WBT | SBL | SBT | SBR |
| Lane Group Flow (vph) | 970 | 323 | 640 | 1429 | 198 | 190 | 180 |
| v/c Ratio | 0.62 | 0.40 | 0.86 | 0.55 | 0.82 | 0.66 | 0.60 |
| Control Delay | 28.3 | 4.2 | 48.9 | 4.6 | 74.3 | 44.4 | 33.5 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.4 | 0.0 | 0.0 | 0.0 |
| Total Delay | 28.3 | 4.2 | 48.9 | 5.0 | 74.3 | 44.4 | 33.5 |
| Queue Length 50th (ft) | 281 | 0 | 275 | 119 | 158 | 100 | 71 |
| Queue Length 95th (ft) | 406 | 61 | m257 | m132 | #243 | 176 | 144 |
| Internal Link Dist (ft) | 609 | | | 506 | | 1275 | |
| Turn Bay Length (ft) | | | 200 | | | | 360 |
| Base Capacity (vph) | 1560 | 815 | 904 | 2601 | 292 | 341 | 350 |
| Starvation Cap Reductn | 0 | 0 | 0 | 570 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.62 | 0.40 | 0.71 | 0.70 | 0.68 | 0.56 | 0.51 |

Intersection Summary

^{# 95}th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

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|-------------------------|-------|----------|------|------|------|----------|-------|
| Lane Group | EBL | EBT | WBT | WBR | NBL | NBT | NBR |
| Lane Group Flow (vph) | 217 | 1074 | 1485 | 500 | 605 | 748 | 723 |
| v/c Ratio | 1.28 | 0.63 | 1.03 | 0.61 | 0.96 | 1.12 | 1.11 |
| Control Delay | 195.0 | 13.7 | 67.2 | 9.8 | 62.5 | 105.8 | 102.2 |
| Queue Delay | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 195.0 | 13.8 | 67.2 | 9.8 | 62.5 | 105.8 | 102.2 |
| Queue Length 50th (ft) | ~120 | 100 | ~616 | 58 | 477 | ~640 | ~612 |
| Queue Length 95th (ft) | #211 | 116 | #749 | 171 | #735 | #881 | #851 |
| Internal Link Dist (ft) | | 506 | 361 | | | 1432 | |
| Turn Bay Length (ft) | 200 | | | | | | 120 |
| Base Capacity (vph) | 170 | 1707 | 1439 | 822 | 630 | 665 | 649 |
| Starvation Cap Reductn | 0 | 77 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 1.28 | 0.66 | 1.03 | 0.61 | 0.96 | 1.12 | 1.11 |

Intersection Summary

Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.

^{# 95}th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

| | • | • | † | - | ↓ |
|-------------------------|------|------|----------|------|------|
| Lane Group | WBL | WBR | NBT | NBR | SBT |
| Lane Group Flow (vph) | 360 | 348 | 1252 | 532 | 1633 |
| v/c Ratio | 0.81 | 0.75 | 0.68 | 0.54 | 0.89 |
| Control Delay | 35.0 | 27.5 | 20.1 | 7.7 | 22.2 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 35.0 | 27.5 | 20.1 | 7.7 | 22.2 |
| Queue Length 50th (ft) | 123 | 95 | 218 | 67 | 427 |
| Queue Length 95th (ft) | #218 | 171 | m270 | m80 | #590 |
| Internal Link Dist (ft) | | | 112 | | 96 |
| Turn Bay Length (ft) | | 1000 | | | |
| Base Capacity (vph) | 525 | 539 | 1831 | 993 | 1843 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.69 | 0.65 | 0.68 | 0.54 | 0.89 |

Intersection Summary

^{# 95}th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

| | • | • | † | ~ | ↓ | 4 |
|-------------------------|------|------|----------|------|----------|------|
| Lane Group | EBL | EBR | NBT | NBR | SBT | SBR |
| Lane Group Flow (vph) | 592 | 494 | 1173 | 254 | 1107 | 391 |
| v/c Ratio | 0.96 | 0.77 | 0.85 | 0.18 | 0.78 | 0.27 |
| Control Delay | 47.6 | 23.7 | 24.7 | 0.3 | 14.3 | 0.2 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 47.6 | 23.7 | 24.7 | 0.3 | 14.3 | 0.2 |
| Queue Length 50th (ft) | 207 | 132 | 188 | 0 | 135 | 0 |
| Queue Length 95th (ft) | #411 | #280 | #301 | 0 | m142 | m0 |
| Internal Link Dist (ft) | | | 135 | | 136 | |
| Turn Bay Length (ft) | | 915 | | | | |
| Base Capacity (vph) | 630 | 655 | 1375 | 1391 | 1416 | 1440 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.94 | 0.75 | 0.85 | 0.18 | 0.78 | 0.27 |

^{# 95}th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

| | → | • | • | ← | - | ↓ | 1 |
|-------------------------|----------|------|------|------|-------|----------|------|
| Lane Group | EBT | EBR | WBL | WBT | SBL | SBT | SBR |
| Lane Group Flow (vph) | 1527 | 546 | 865 | 1501 | 242 | 234 | 217 |
| v/c Ratio | 1.01 | 0.64 | 1.02 | 0.55 | 1.03 | 0.90 | 0.75 |
| Control Delay | 58.9 | 10.6 | 59.2 | 2.8 | 116.7 | 80.2 | 47.1 |
| Queue Delay | 8.4 | 0.0 | 0.0 | 2.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 67.3 | 10.6 | 59.2 | 4.8 | 116.7 | 80.2 | 47.1 |
| Queue Length 50th (ft) | ~592 | 80 | ~403 | 79 | ~212 | 162 | 102 |
| Queue Length 95th (ft) | #752 | 202 | m365 | m77 | #387 | #314 | #217 |
| Internal Link Dist (ft) | 609 | | | 506 | | 1275 | |
| Turn Bay Length (ft) | | | 200 | | | | 360 |
| Base Capacity (vph) | 1514 | 857 | 848 | 2732 | 235 | 260 | 290 |
| Starvation Cap Reductn | 39 | 0 | 0 | 1027 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 1.04 | 0.64 | 1.02 | 0.88 | 1.03 | 0.90 | 0.75 |

Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.

^{# 95}th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

| | ۶ | - | ← | • | • | † | / |
|-------------------------|------|------|----------|------|------|----------|----------|
| Lane Group | EBL | EBT | WBT | WBR | NBL | NBT | NBR |
| Lane Group Flow (vph) | 195 | 1748 | 2003 | 268 | 373 | 465 | 443 |
| v/c Ratio | 0.73 | 0.81 | 1.12 | 0.33 | 0.83 | 1.01 | 0.98 |
| Control Delay | 38.7 | 2.0 | 91.1 | 6.9 | 56.8 | 85.9 | 74.0 |
| Queue Delay | 0.0 | 0.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 38.7 | 2.9 | 91.1 | 6.9 | 56.8 | 85.9 | 74.0 |
| Queue Length 50th (ft) | 84 | 6 | ~892 | 35 | 287 | ~353 | 300 |
| Queue Length 95th (ft) | m85 | m6 | #1023 | 88 | #456 | #574 | #518 |
| Internal Link Dist (ft) | | 506 | 361 | | | 1432 | |
| Turn Bay Length (ft) | 200 | | | | | | 120 |
| Base Capacity (vph) | 268 | 2168 | 1790 | 807 | 451 | 459 | 453 |
| Starvation Cap Reductn | 0 | 178 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.73 | 0.88 | 1 12 | 0.33 | 0.83 | 1 01 | 0.98 |

Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.

^{# 95}th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

ATTACHMENT G

SITE ADJACENT QUEUES



Intersection: 4: Rancho Camino Dr. & Rio Rancho Rd.

| Movement | EB | EB | EB | WB | WB | WB | WB | NB | NB | |
|-----------------------|------|------|-----|-----|-----|-----|-----|-----|-----|--|
| Directions Served | T | T | R | L | T | Т | Т | L | R | |
| Maximum Queue (ft) | 959 | 954 | 952 | 231 | 296 | 245 | 161 | 214 | 439 | |
| Average Queue (ft) | 457 | 445 | 301 | 150 | 62 | 62 | 64 | 109 | 151 | |
| 95th Queue (ft) | 1036 | 1034 | 957 | 242 | 189 | 160 | 141 | 207 | 387 | |
| Link Distance (ft) | 934 | 934 | 934 | | 506 | 506 | 506 | | 811 | |
| Upstream Blk Time (%) | 25 | 25 | 21 | | | | | | | |
| Queuing Penalty (veh) | 0 | 0 | 0 | | | | | | | |
| Storage Bay Dist (ft) | | | | 170 | | | | 165 | | |
| Storage Blk Time (%) | | | | 9 | 0 | | | 1 | 17 | |
| Queuing Penalty (veh) | | | | 35 | 0 | | | 4 | 26 | |

Intersection: 5: Driveway 1 & Rancho Camino Dr.

| Movement | NB |
|-----------------------|-----|
| Directions Served | LR |
| Maximum Queue (ft) | 56 |
| Average Queue (ft) | 31 |
| 95th Queue (ft) | 50 |
| Link Distance (ft) | 334 |
| Upstream Blk Time (%) | |
| Queuing Penalty (veh) | |
| Storage Bay Dist (ft) | |
| Storage Blk Time (%) | |
| Queuing Penalty (veh) | |

Intersection: 6: Driveway 2 & Rancho Camino Dr.

| Movement | NB |
|-----------------------|-----|
| Directions Served | LR |
| Maximum Queue (ft) | 56 |
| Average Queue (ft) | 22 |
| 95th Queue (ft) | 48 |
| Link Distance (ft) | 391 |
| Upstream Blk Time (%) | |
| Queuing Penalty (veh) | |
| Storage Bay Dist (ft) | |
| Storage Blk Time (%) | |
| Queuing Penalty (veh) | |

Zone Summary

Zone wide Queuing Penalty: 0

Intersection: 4: Rancho Camino Dr. & Rio Rancho Rd.

| Movement | EB | EB | EB | WB | WB | WB | WB | NB | NB | |
|-----------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| Directions Served | T | T | R | L | T | T | T | L | R | |
| Maximum Queue (ft) | 567 | 561 | 265 | 235 | 532 | 163 | 111 | 215 | 515 | |
| Average Queue (ft) | 347 | 340 | 181 | 235 | 525 | 25 | 31 | 203 | 413 | |
| 95th Queue (ft) | 805 | 804 | 709 | 235 | 532 | 99 | 82 | 257 | 579 | |
| Link Distance (ft) | 934 | 934 | 934 | | 506 | 506 | 506 | | 811 | |
| Upstream Blk Time (%) | 9 | 14 | 11 | | 66 | 0 | | | | |
| Queuing Penalty (veh) | 0 | 0 | 0 | | 297 | 0 | | | | |
| Storage Bay Dist (ft) | | | | 170 | | | | 165 | | |
| Storage Blk Time (%) | | | | 99 | | | | 8 | 57 | |
| Queuing Penalty (veh) | | | | 248 | | | | 56 | 189 | |

Intersection: 5: Driveway 1 & Rancho Camino Dr.

| Movement | NB |
|-----------------------|-----|
| Directions Served | LR |
| Maximum Queue (ft) | 64 |
| Average Queue (ft) | 30 |
| 95th Queue (ft) | 54 |
| Link Distance (ft) | 334 |
| Upstream Blk Time (%) | |
| Queuing Penalty (veh) | |
| Storage Bay Dist (ft) | |
| Storage Blk Time (%) | |
| Queuing Penalty (veh) | |

Intersection: 6: Driveway 2 & Rancho Camino Dr.

| Movement | NB |
|-----------------------|-----|
| Directions Served | LR |
| Maximum Queue (ft) | 55 |
| Average Queue (ft) | 24 |
| 95th Queue (ft) | 50 |
| Link Distance (ft) | 391 |
| Upstream Blk Time (%) | |
| Queuing Penalty (veh) | |
| Storage Bay Dist (ft) | |
| Storage Blk Time (%) | |
| Queuing Penalty (veh) | |